

Lawrence Livermore National Laboratory (LLNL) Experimental Test Site (Site 300) Compliance Monitoring Program Report for the Closed Pit 1 Landfill, Fourth Quarter Report for 2019

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February 28, 2020

This work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.



Lawrence Livermore National Laboratory

February 27, 2020

Aimee C. Phiri, P.E. Water Resources Control Engineer RWQCB – Central Valley 11020 Sun Center Drive, Suite 200 Rancho Cordova, CA 95670-6114

Subject: Lawrence Livermore National Laboratory (LLNL) Experimental Test Site (Site 300)

Compliance Monitoring Report for Waste Discharge Requirements (WDR) Order No. R5-

2008-0148, Second Semester/Annual 2019 Report

Dear Ms. Phiri:

Please find enclosed the *LLNL Site 300 Compliance Monitoring Report for WDR Order No. R5-2008-0148, Second Semester/Annual 2019 Report.* This report meets the semi-annual/annual reporting requirements and monitoring summary required in the WDR Monitoring and Reporting Program (MRP) first adopted in September 2008, and revised effective December 1, 2009. The revised MRP terms and conditions have been implemented in this report. The monitoring networks covered under the terms and conditions of this Permit include the sewage evaporation and percolation ponds, cooling tower discharges to percolation pits and septic systems; mechanical equipment discharges to percolation pits, and other low-threat discharges located at Site 300.

Data tables, figures, and supporting information are presented in appendices and preceded by a summary and a discussion of the second semester 2019 monitoring results that pertain to compliance with WDR Order No. R5-2008-0148.

Should you have any questions regarding this report, please contact Ada Chan at (925) 422-7758.



CERTIFICATION STATEMENT

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Crystal Quinly, Manager Environmental Functional Area Environment, Safety & Health

Enclosure: Lawrence Livermore National Laboratory (LLNL) Experimental Test Site (Site 300)
Compliance Monitoring Report for Waste Discharge Requirements (WDR) Order No.
R5-2008-0148, Second Semester/Annual 2019 Report

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Water, Air, Monitoring and Analysis Group

LLNL-AR-411431-20-3

LLNL Experimental Test Site, Site 300 Compliance Monitoring Report for Waste Discharge Requirements (WDR) Order No. R5-2008-0148

Second Semester/Annual Report 2019

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- Field Tracking Forms
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- Ground Water Sampling Data Forms
- Sewer Pond Wastewater Annual Plots
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Appendix B Cooling Tower Network

- Cooling Tower Blowdown Effluent Monitoring Network with Discharges to Percolation Pits for Buildings 801, 817A, 826, 827A, and 851
- Cooling Tower Figures, Tables, and CoCs
- Cooling Tower Percolation Pit Inspection Forms

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- Mechanical Equipment Room Network with Discharges to Percolation Pits for Buildings 806A, 827A, 827C, 827D, and 827E
- Mechanical Equipment Figures, Tables, and CoCs
- Mechanical Equipment Percolation Pit Inspection Forms

Appendix D California Regional Water Quality Control Board Central Valley Region Monitoring and Reporting - LLNL

Date

I.I.NI. Site 300 Compliance Monitoring Report for WDR Order No. R5-2008-0148 Second Semester/Annual Report 2019

Certification

I certify that the work presented in this report was performed under my supervision. To the best of my knowledge, the data contained herein are true and accurate, and the work was performed in accordance with professional standards.



Michael J. Taffet

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List of Abbreviations and Acronyms

3CMP Compliance Monitoring Program Site 300 ground water samples

3EMG Environmental Support & Programmatic Outreach (ESPO) Group Site 300

ground water samples

3GIV Ground water samples collected at Site 300 for site investigations

3VES Sampling method requiring three casing volumes purged using an electric

submersible pump

BCLABS-BAK BC Laboratories, Inc. in Bakersfield, CA

BOD Biochemical oxygen demand

CERCLA Comprehensive Environmental Response, Compensation and Liability Act

CMP Compliance Monitoring Program (conducted under CERCLA)

CMR Compliance Monitoring Report (prepared under CERCLA)

CoC Chain-of-custody form

CVRWQCB Central Valley Regional Water Quality Control Board

DO Dissolved oxygen

DSWP Sewage percolation pond influent sampling location

DTW Depth to (ground) water

EC Electrical conductivity, or specific conductance (SC)

EFA Environmental Functional Area

ESWP Sampling location within sewage evaporation pond

GF Grundfos pump

ft Feet

gal Gallons

gpm Gallons per minute (measurement of discharge or flow rate)

GWE Ground water elevation (above mean sea level)

HSU Hydrostratigraphic unit
ID Identification number

ISWP Sewage evaporation pond influent sampling location

LAMP Local Agency Management Program

LLNL Lawrence Livermore National Laboratory

MCL Maximum Contaminant Level (for drinking water)

List of Abbreviations and Acronyms cont.

mL Milliliters

MPN Most probable number

MRP Monitoring and Reporting Program

mV Millivolts (measure of oxidation-reduction potential)

NA Not applicable

ND None detected, or not detected

NO₃ Nitrate

NR Analysis not required by permit at this sampling location

pH Measure of the acidity or alkalinity of a solution

OG Off-gassing measured by scale of 1-5, 5 being highest amount of off-gassing

OU Operable Unit under CERCLA

OWTS Onsite Wastewater Treatment System

Q Discharge or flow rate, or number of well volumes purged (according to context)

QA Quality Assurance

Qal Quaternary Age alluvial deposits

QC Quality control

Qt Quaternary Age terrace deposits

RWD Reports of Waste Discharge

RHWM Radioactive and Hazardous Waste Management

SC Specific conductance, or electrical conductivity (same as EC)

SHO Short analytical holding time (such as samples for coliform bacteria analyses)

SJC San Joaquin County

SJCEHD San Joaquin County Environmental Health Department

VOA Samples collected for analysis of volatile organic compounds

WDR Waste Discharge Requirements (Permit)

Executive Summary

Under authority of the State of California and as required by the Porter-Cologne Water Quality Control Act, the Central Valley Regional Water Quality Control Board (CVRWQCB) issued Order No. R5-2008-0148 for the Experimental Test Site (Site 300), to Lawrence Livermore National Laboratory (LLNL). Monitoring and Reporting Program (MRP) Number R5-2008-0148 was adopted in September 2008, and revised effective December 1, 2009. The revised MRP terms and conditions have been implemented in this report. Under the terms of this MRP, LLNL submits semi-annual and annual monitoring reports detailing its Site 300 discharges of domestic and wastewater effluent to the sewage evaporation pond and percolation pond in the Site 300 General Services Area, and cooling tower blowdown to percolation pits and septic systems, and mechanical equipment discharges to percolation pits located throughout Site 300.

This report contains all the elements required by Waste Discharge Requirement (WDR) Order R5-2008-0148 for the second semester of 2019 and updates the status of equipment and facilities since the adoption of R5-2008-0148. Proper operating conditions were met for all permitted networks. Compliance certification accompanies this report, as required by the permit.

1. Introduction

Site 300, operated by Lawrence Livermore National Security, LLC, is located in the Altamont Hills approximately 10.5 kilometers (6.5 miles) southwest of downtown Tracy, California. Required monitoring for specific Lawrence Livermore National Laboratory (LLNL) Site 300 water monitoring networks is defined in the Monitoring and Reporting Program (MRP) Order Number R5-2008-0148, which was adopted in September 2008, and revised effective December 1, 2009. The revised MRP has been implemented in this report. Applicable reporting requirements can be found in the Standard Provisions and Reporting Requirements specified in the Waste Discharge Requirements (WDR) Order R5-2008-0148 (CVRWQCB, 2008) permit and in the MRP R5-2008-0148.

This report provides a summary of water quality in designated monitoring network samples collected during the second semester of 2019 under the revised MRP R5-2008-0148 (CVRWQCB, 2008). The report details the monitoring results of the four compliance networks and presents analytical data, field summary sheets, and inspection logs associated with discharges at the networks.

Compliance monitoring networks discussed in the report include:

- Sewage evaporation and percolation ponds wastewater and ground water monitoring (Sections 2.1 through 2.5).
- Cooling tower blowdown discharge monitoring and percolation pit inspections (Sections 3.1 through 3.4).
- Mechanical equipment effluent discharge monitoring and percolation pit inspections (Sections 4.1 through 4.4).
- Septic systems and construction updates (Sections 5.1 through 5.3)

BC Laboratories, Inc. and Alpha Labs provided off-site analytical support for the monitoring networks.

This report summarizes the activities associated with these monitoring networks including: tabular summaries or data plots for all data for at least the last five years; a ground water elevation contour map with well locations; identification of any data gaps or deficiencies; and a discussion of any changes to the monitoring program.

Figure 1 shows the locations of the wastewater systems permitted under WDR R5-2008-0148, including mechanical equipment percolation pits and the sewage oxidation and percolation ponds (sewage ponds) located in the General Services Area. None of the permitted mechanical equipment percolation pits overflowed during this monitoring period, however there was standing water observed within one of the Christy boxes at Building 827C. In addition, there was standing water observed at the cooling tower percolation pits at Buildings 827A and 851. There were no detected chemical impacts to ground water beneath and adjacent to the sewage ponds. Discharges from cooling towers and mechanical equipment were consistent with historic information provided in the previous Reports of Waste Discharge (RWD).

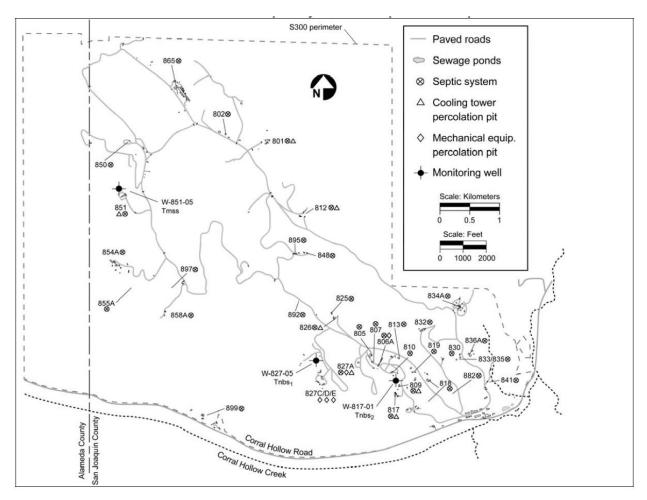


Figure 1. Locations of Site 300 facilities with septic systems and percolation pits.

2. Sewage Evaporation and Percolation Ponds

2.1. Effluent and Pond Compliance Monitoring Program

MRP R5-2008-0148 requires semi-annual and annual sampling and chemical analysis of wastewater flowing into the sewage evaporation pond (sewage pond). Grab samples are collected from a location west of the sewage pond (see sampling location ISWP in **Appendix A, Figure A-1** showing the Site 300 sewage evaporation and percolation ponds and ground water and wastewater compliance monitoring locations). Location ISWP is a port providing access to a section of pipe through which all liquid waste streams flow prior to entering the sewage pond. The samples are analyzed for specific conductance (SC, or electrical conductivity), pH, and biochemical oxygen demand (BOD).

MRP R5-2008-0148 also requires sampling and analysis of wastewater within the sewage pond and wastewater discharging into the sewage percolation pond. Semi-annual wastewater samples are collected by grab sampling from a dock at the eastern end of the sewage pond (sampling location ESWP) and analyzed for SC, pH, metals, dissolved oxygen (DO), BOD, and total and fecal coliform. Any discharge from the sewage pond to the sewage percolation pond (sampling location DSWP) is grab-sampled and analyzed for the same constituents. Permit WDR R5-2008-0148 requires LLNL to operate the sewage pond with adequate freeboard to minimize the frequency of discharges to the sewage percolation pond.

Leak detection and compliance monitoring at the sewage evaporation and percolation ponds is accomplished by monitoring the shallow ground water beneath and adjacent to the ponds. Ground water monitoring includes semi-annual sampling during the first and second semesters when ground water elevations are at their highest and lowest, respectively, and analysis of the collected samples for SC, pH, total and fecal coliform, chloride, nitrate, sulfate, total dissolved solids, sodium, and metals. In addition, ground water elevations are routinely recorded and potentiometric surface contour maps are created (**Appendix A, Figure A-2**). A map showing the locations of the monitor wells and ponds (**Appendix A, Figure A-1**) and tables of monitor well specifications and groundwater elevations for the second semester of 2019 for each well are provided (**Appendix A, Tables A-1 and A-2**).

In addition to normal operation of the sewage evaporation pond, there are also discharges to it associated with the beneficial use of discharged water. These discharges are in preparation for potable water delivery to Site 300 from the San Francisco Public Utility District Hetch-Hetchy water system. During these operations, Hetch-Hetchy water is flushed periodically to maintain sanitary conditions in the potable water line. When a discharge to the sewage evaporation pond is scheduled, the chlorinated water in the Hetch-Hetchy line is analyzed for chlorine. When the water reaches a chlorine residual value at or below 1.0 mg/L, the water is ready to flush. When flushing, a 4-inch hose is used from the discharge of the Hetch-Hetchy line at the LLNL valve box to the sewage pond. Before the water is flushed, the residual chlorine concentration generally decreases to between 0.2 and 1.0 mg/L. The pH is checked and logged at the source.

During the second semester of 2019, no discharge of evaporation-loss makeup water to the sewage pond occurred and there was no water system pipeline flush. Details of first semester discharges

are shown on **Table 1,** below, which provides the volume of water discharged, chlorine residual concentration, and pH of the discharged water. The pH was inadvertently not measured during the first semester flush and verbal communication was made with the LLNL Operations and Business supervisor responsible for these measurements. The table will be added to the operations manual to ensure that pH is measured prior to flushing events.

Table 1. Summary of water system pipeline flushing and pressure testing discharges at Site 300 during 2019.

Discharge Period	Volume Discharged (gallons)	Chlorine Residual (mg/L)	pH (units)	Comment
First Semester	70,700	<1	-	4 separate flushes were performed with an average of 17,675 gallons each
Second Semester	-	-	-	-

In August 2018, a Seametrics magmeter flow meter was installed on the 8-inch cast iron sewer line that discharges to the sewage evaporation pond to monitor the influent flow. The flow meter was installed outside the fence at the southwest corner of the sewer pond. The June 2019 flow measurements were different than anticipated. A consultation with the manufacturer determined that the flow meter is not designed for the intermittent low flow. Therefore, flow meter and pipe design upgrades are being discussed with the Mechanical Utilities Division.

During the beginning of December 2019, the cable for the newly installed fourth aerator snapped due to material incompatibility with the chemistry of the sewage pond wastewater. The cables hold the aerator in place at the pond. On January 17, 2020, the snapped cable was replaced, and the aerator was back online Previously, the ball float depth measurement tool located at the far east side of the sewage pond was constructed to ensure accurate depth in inches. In the future, to improve ease of use, work will be performed to display depth level at multiple angles.

As noted on the inspection field sheet, due to an inoperable pump, ground water sample collection was not performed at well W-7DS. The well has been on the well tracking list for repair since March 26, 2019. Pump replacement will begin during the first quarter of 2020.

2.2. Sewage Pond Wastewater Sampling and Analysis

Less than 12 hours before sewage pond wastewater sampling and field measurements, the DO, SC, and pH meters are calibrated. The DO, SC, pH, and temperature of each sample are measured and written on the field tracking forms (field logs) when the grab samples from ISWP, ESWP, and DSWP are collected. For each analytical laboratory to which samples are submitted, chain-of-custody (CoC) forms are filled out appropriately and signed by the sampler. The CoC numbers are also written on the field logs. Appropriate EPA-approved analytical methods (U.S. Environmental Protection Agency, 2005) or Standard Methods (Clesceri et al., 1998) are used.

The samples required under MRP R5-2008-0148 for locations ISWP and ESWP were collected on April 30, 2019. These samples, and all samples with results presented in this report, were collected, analyzed, and the data entered into the LLNL Environmental Functional Area (EFA) database according to a complete set of protocols documented in the LLNL EFA Environmental Monitoring Plan (Brunckhorst, 2019).

2.3. Sewage Pond Wastewater Monitoring Results

Analytical results for second semester 2019 samples are summarized here as required under MRP R5-2008-0148. Monitoring data are tabulated in **Appendix A**. Coliform, anion, BOD, DO, and specific conductance data summaries are presented in **Table A-3**. A metal data summary for the ESWP location is presented in **Table A-4**. **Table A-5** provides a duplicate (QA) sampling data summary for the sewage pond's wastewater monitoring network. All results and observations were in compliance with the Permit's discharge specifications as shown in **Appendix D**. There was adequate freeboard in the sewage pond to prevent any over-topping or erosion of the pond embankment. Field tracking forms documenting operational conditions at Site 300 are provided in **Appendix A**, which also contains the field logs, including field measurements and CoCs. The original laboratory analytical result sheets are stored at LLNL and are available upon request.

- As listed in **Table A-3**, samples from the two monitoring points, 3-ESWP-OW and 3-ISWP-OW, had similar pH values of 9.6 and 9.0 respectively on September 24th. The specific conductance (SC) of the effluent sample, 3-ESWP-OW, at 8,500 μmhos/cm, was substantially higher than for the influent sample, 3-ISWP-OW, at 1,800 μmhos/cm, which may be attributed to evaporation. The SC values are reflective of typical values at the sewage pond. There is no reporting limit for SC. The BOD of the effluent and influent samples was 67 and 280 mg/L, respectively. The fecal and total coliform reporting limit is 2 most probable number (MPN)/100mL and the effluent concentration of fecal coliform was more than 1,600 MPN/100mL. The sodium concentrations from the first and second semesters were similar at 1,700 and 2,300 mg/L, respectively.
- Table A-4 contains metals first and second semester data for the sewer pond effluent monitoring location (3-ESWP-OW). Of the metal analytes, only aluminum, barium, hexavalent chromium, lead, mercury, selenium, silver, and vanadium concentrations were below their reporting limits in the second semester samples. Concentrations of aluminum, arsenic, boron, calcium, chromium, copper, iron, magnesium, manganese, molybdenum, nickel, and potassium were lower in the first semester samples whereas concentrations of barium, selenium, and zinc were slightly higher in the first semester samples.
- **Table A-5** lists the first and second semester 2019 QA data for the wastewater monitoring network. During the second semester, a duplicate pH measurement from the influent location, 3-ISWP-OW, was the only quality assurance measurement. The routine and duplicate pH measurements were 9.0 and 8.4, respectively.

2.4. Ground Water Sampling and Analysis

Semi-annual sampling of ground water from monitor wells at the sewage evaporation and percolation ponds was performed during the second semester of 2019. The ground water samples were collected and analyzed, and results entered into the EFA database according to established protocols (Goodrich and Lorega, 2016). The monitor wells were purged and sampled during two phases (September 4th - 19th and December 9th - 11th) using prescribed methods assigned to each monitor well. Information regarding the conditions during sampling, as well as field measurements taken at the time of sampling, is found in the ground water sampling data sheets in **Appendix A**. The collected samples were transferred to an offsite analytical laboratory for analysis of the physical and chemical parameters and analytes listed in **Section 2.1**. Following the

initial sampling events, a pre-calculated dose of chlorine was added to each well and the well was briefly pumped to circulate the chlorine throughout the water column. On the following day, wells were tested for residual chlorine and samples were collected for analysis of total and fecal coliform bacteria at an offsite analytical laboratory.

2.5. Ground Water Monitoring Results

Ground water data are presented in tables found in **Appendix A**. Sodium and anion data are tabulated in **Table A-6**. Fecal and total coliform data are listed in **Table A-7**. **Table A-8** provides a summary of physical chemical data and **Table A-9** lists metals data. QA data summaries for the monitoring well network are presented in **Table A-10**. **Appendix A, Figure A-2** contains the second semester 2019 ground water elevation contour map for the shallowest water-bearing zone (Qt-Tnsc₁ and Qal-Tnbs₁ hydrostratigraphic units [HSUs]) in the sewage evaporation and percolation ponds area. Nitrate concentrations in sewer pond ground water network monitor wells are depicted on **Appendix A, Figure A-3**.

- The sewer pond groundwater monitoring results in **Table A-6** indicate that nitrate concentrations at most wells this year were generally consistent between measurements; all were below the 45 mg/L maximum contaminant level (MCL) for nitrate in drinking water.
- As shown in Table A-7, fecal coliform was not detected above the reporting limit of 1.8 MPN/100mL in any first or second semester 2019 groundwater samples. Samples collected from well W-35A-04 in June and well W-7PS in September yielded total coliform results of 49 MPN/100mL. The September and December samples from well W-26R-05, contained total coliform concentrations of 32 MPN/100mL and 3.6 MPN/100mL, respectively. LLNL will continue to monitor these wells for coliform.
- As shown in **Table A-8**, phosphorus concentrations in all second semester groundwater samples were below the reporting limit of 1 mg/L. The individual well physical chemistry data ranges for the other constituents were similar to those reported last year.
- As shown in Table A-9, aluminum, cadmium, hexavalent chromium, iron, lead, manganese, molybdenum, silver, and vanadium were not detected above their reporting limits in all second semester 2019 samples. First semester 2019 zinc concentrations in all wells were slightly higher than second semester 2019 zinc concentrations. The other metals concentrations were generally consistent between semesters.
- As shown in Table A-10, the duplicate sample results for pH, specific conductance, fecal coliform, total coliform, and nitrate were either identical or very similar to the routine sample results with the exception of the December total coliform samples from well W-7ES in the duplicate sample. The total coliform duplicate sample yielded 540 MPN/100mL while the routine sample yielded 2.0 MPN/100mL. The duplicate result was flagged by the LLNL quality assurance chemist and total coliform will continue to be closely monitored.

2.6 Sewage Evaporation Pond and Percolation Pit Monthly Inspections

Observations of freeboard, color, odor, and levee condition at the sewage pond and percolation pond are made and recorded at least monthly. **Appendix A** contains several second semester 2019 data sets and other material including; field tracking forms, sewage and percolation pond

inspection and monitoring reports, ground water sampling data forms, historical data plots for the sewage evaporation pond and percolation pond network, and ground water monitoring field observation forms for the sewage pond.

The December inspection and monitoring report indicates that there was one inch of standing water in the percolation pond. The sewage pond was green during the second semester with algae and insects observed. There were no reports of odor, solids, or scum.

3. Cooling Tower Network

3.1. Cooling Tower Compliance Monitoring Program

Monitoring requirements for cooling tower blowdown water are specified in MRP R5-2008-0148. LLNL implemented the cooling tower blowdown monitoring starting in the fourth quarter of 2008. Applicable reporting requirements are found in the Standard Provisions and Reporting Requirements of WDR R5-2008-0148 and the MRP.

Cooling towers located at Site 300 discharge either into percolation pits or into septic systems. Currently, there are five operating cooling towers. The cooling tower locations are identified on **Appendix B, Figure B-1**. The cooling towers located at Buildings 801, 817, 826, 827A, and 851 all discharge to percolation pits and were operational this period. The two cooling towers located at Building 827A blend water from a combined discharge line and therefore only one sample is routinely collected to characterize the discharge from these cooling towers.

MRP R5-2008-0148 requires semi-annual sampling of the cooling tower blowdown. Grab samples are collected from the water circulating in the cooling tower, either at a valve or a drainpipe. The grab samples are collected directly into the containers specified by the laboratory. Samples are analyzed for metals, pH, sodium, SC, sulfate, total alkalinity, total dissolved solids, total hardness, and total phosphorus.

3.2. Cooling Tower Blowdown Effluent Sampling and Analysis

Second semester 2019 routine cooling tower blowdown samples were collected on October 22, 2019. Less than 12 hours before cooling tower blowdown sampling, the SC and pH meters are calibrated. SC and pH data measured in the field are written on field tracking forms. CoC forms are filled out appropriately and signed by the sampler for each analytical laboratory to which the samples are transferred; CoC numbers are also written on the field logs. Analytical methods used are appropriate EPA-approved Methods (U.S. Environmental Protection Agency, 2005) or Standard Methods (Clesceri et al., 1998).

3.3. Cooling Tower Blowdown Monitoring Results

All cooling tower sample results are listed in **Appendix B** along with the QA/QC results, field tracking forms, inspection checklists, and CoCs. **Table B-1** lists sodium and anions data. **Table B-2** lists metals results, and **Table B-3** provides required physical characteristics data. QA/QC data from duplicate sampling are provided in **Table B-4**.

The following section includes highlights and a summary of comparisons of second semester 2019 analytical results for each constituent in cooling tower blowdown samples to Designated Level Methodology-derived concentrations calculated using the water quality goals (where they exist) shown in Attachment 16 of the permit (WDR Order No. R5-2008-0148) and maximum historical

values observed at the time of the permit. For reference, **Appendix D** of this document contains Attachment 16 of the WDR permit.

- **Table B-1** lists results for sodium and anions (chloride, nitrate, sulfate, fluoride, and bromide). The sodium concentrations were above 1,000 mg/L at Buildings 801, 827A and 851 whereas at Buildings 817A and 826, the sodium concentrations were 570 mg/L and 380 mg/L, respectively. The sodium concentrations are similar to those of previous years.
- The second semester 2019 metals concentrations in cooling tower wastewater are displayed in **Table B-2** and summarized below.
 - Aluminum, cadmium, lead, magnesium, manganese, mercury, nickel, silver, and vanadium were not detected in excess of reporting limits in any current cooling tower blowdown samples.
 - O Copper concentrations in samples collected during the second semester 2019 ranged from 5.5 μg/L to 28 μg/L, below the maximum historical effluent concentration summarized in Appendix D (2,400 μg/L). The Building 826 sample yielded lower copper concentrations of 5.5 μg/L compared to the first semester concentration from the cooling tower (86 μg/L).
 - The measurable fourth quarter molybdenum concentrations in blowdown samples ranged from 29 $\mu g/L$ at Building 826 to 44 $\mu g/L$ at Building 817 while the remaining concentrations were less than 120 $\mu g/L$. The molybdenum reporting limit for many samples was 120 $\mu g/L$, leading to many non-detectable concentrations.
 - o Zinc concentrations in second semester samples ranged from less than the $20 \,\mu g/L$ reporting limit to $150 \,\mu g/L$, below the maximum historical zinc concentration of $340 \,\mu g/L$ shown in **Appendix D**. The zinc concentrations at the Building 826 and Building 827A cooling towers were lower than the first semester zinc concentrations of $120 \,\mu g/L$ and $210 \,\mu g/L$, respectively.

Last year, molybdenum and zinc exceeded their historical maxima listed in **Appendix D** (Attachment 16 of the WDR). This year, no cooling tower blowdown constituents exceeded their historical maxima. The concentrations for all the metals in all 2019 cooling tower effluent samples are well below concentrations calculated using the Designated Level Methodology in Appendix D (WDR Order Attachment 16) for impact to ground water. LLNL will continue to evaluate metals concentrations in future samples of cooling tower effluent.

- **Table B-3** lists the physical characteristics of the cooling tower effluent discharges. First semester Building 801 effluent had uncharacteristically high levels of SC, total alkalinity, dissolved solids, and hardness compared to those for the second semester.
- As shown in Table B-4, a QA sample was collected from the Building 817A cooling tower on October 22, 2019. The individual routine and duplicate sample results were identical or similar.

3.4. Cooling Tower Percolation Pit Monthly Inspections

LLNL implements monthly visual inspections of the cooling tower percolation pits located at Buildings 801, 817A, 826, 827A, and 851 (**Figure B-1**), which collect effluent from the cooling towers as specified in MRP R5-2008-0148.

If standing water is present, the MRP requires the inspection frequency to be increased to weekly until standing water is no longer visible. Visual inspections are conducted to verify the percolation pits are working properly and do not have the potential to overflow. Copies of the inspection forms are provided in **Appendix B**.

From July to December, there was one to seven inches of standing water in the Christy boxes at Building 827A and Building 851. Because of the consistent standing water in the boxes, the operations team is evaluating whether precipitation of solids from the water hardness in the cooling tower blowdown may be clogging the rocks at the cooling tower percolation pits. None of the standing water in either of these Christy boxes was near the surface spill point and thus none posed a potential threat to the environment.

4. Mechanical Equipment Effluent Monitoring

4.1. Mechanical Equipment Discharge Monitoring Program

Monitoring requirements for mechanical equipment discharge effluent to percolation pits is specified in the MRP R5-2008-0148. LLNL monitors the mechanical equipment systems located at Buildings 806A, 827A, 827C, 827D, and 827E. In **Appendix C, Figure C-1** provides the locations of those systems. Since mid-2016, Building 827D has been undergoing construction and the existing boiler ovens have been replaced with electric ovens. With ongoing construction and electric ovens that do not employ boilers, there has been no discharge to the percolation pit at Building 827D. Two vacuum pumps and a DI water system periodically discharge to the Building 827D percolation pit. The vacuum pumps remove moisture from the air prior to it entering the mixer. The volume of water is minimal, and the DI water system only discharges to the pit in the event of a failure. Monthly inspections are performed. However, no sampling and analysis of water was performed due to the limited discharge activity.

4.2. Mechanical Equipment Effluent Sampling and Analysis

The results for the mechanical equipment room effluent monitoring are reported in data tables in **Appendix C**. Monitoring is performed using automated composite sampling from the Christy during operations. During this monitoring period samples were taken at Buildings 806A, 827A, 827C, and 827E.

For the sampling and analysis of mechanical equipment effluent, for each analytical laboratory, CoC forms are filled out appropriately and signed by the sampler. CoC numbers are also written on the field logs, provided in **Appendix C**. Appropriate EPA-approved analytical methods (U.S. Environmental Protection Agency, 2005) or standard methods (Clesceri et al., 1998) are used.

4.3. Mechanical Equipment Effluent Monitoring Results

There are mechanical equipment percolation pits located at Buildings 806A, 827A, 827C, 827D, and 827E (**Figure C-1**). Sample analytical results for the monitoring network for these pits are presented in tables in **Appendix C. Table C-1** lists sodium and anion data, **Table C-2** lists metals

results and **Table C-3** provides required physical characteristics data. Data from duplicate sampling is provided in the data tables. Constituent concentrations in 2019 effluent samples are protective of underlying ground water, for constituents possessing Designated Level Methodology-derived concentrations as shown in **Appendix D**.

- Table C-1 lists the nitrate concentrations in all the mechanical equipment discharges; Buildings 806A, 827C, and 827E had nitrate concentrations below the 0.5 mg/L reporting limit. At Building 827A, the second semester nitrate concentration was 3.5 mg/L. Sodium, chloride, and sulfate concentrations were higher than unusual at Building 827A with concentrations of 1,800 mg/L of sodium, 710 mg/L of chloride, and 1,300 mg/L of sulfate (first semester concentrations were 280 mg/L of sodium, 120 mg/L of chloride, and 220 mg/L of sulfate). The potential cause of the high concentrations of anions may be attributed to the discharges from the water softener, vacuum pump, or boilers.
- Metals data are tabulated in **Table C-2**. Many metals (aluminum, cadmium, chromium, lead, magnesium, manganese, mercury, molybdenum, silver, and vanadium) were not detected in excess of their reporting limits. At Building 827A, the second semester 2019 concentration of zinc (120 μg/L) was higher than that of the previous semester (26 μg/L).
- The second semester physical chemistry data from the mechanical equipment discharge effluent monitoring in **Table C-3** were similar to last semester's concentrations. The effluent concentrations in the routine sample from Building 806A were nearly identical to the concentrations in the duplicate sample, with the exception of total dissolved solids (700 mg/L and 740 mg/L, respectively).

4.4. Mechanical Equipment Percolation Pit Monthly Inspections

MRP R5-2008-0148 requires monthly inspections of the five mechanical equipment percolation pits located at Buildings 806A, 827A, 827C, 827D, and 827E. **Appendix C** contains the mechanical equipment percolation pit inspection checklists. If standing water is visible during an inspection, the inspection frequency for that percolation pit is increased to weekly until no standing water is visible.

During the second semester (August to December), one to six inches of standing water was observed at Building 827C. As a result, visual inspections were performed weekly during this period. The gravel/rocks in the pit at Building 827C will be excavated and replaced to improve percolation. In addition, salts have precipitated in the drains and will be cleaned out. These salts arise from mechanical equipment discharge (i.e., the vacuum pump, boilers, and water softener).

5. Septic Systems

5.1. Septic System Monitoring Program

Ground water monitoring requirements for septic system at four areas at Site 300 were specified in MRP R5-2008-0148 (CVRWQCB, 2008). A total of 33 facilities at Site 300 (Figure 2) have septic systems with varying capacities and designs.

In the Revised Monitoring and Reporting Plan (CVRWQCB, 2009), the monitoring requirements for the four septic systems specified in CVRWQCB, 2008 were removed and the MRP was to be

revised to include ground water monitoring for any septic systems determined to threaten beneficial uses of ground water.

5.2. Septic System Permitting

With the San Joaquin County Environmental Health Department (SJCEHD) obtaining their Local Agency Management Program (LAMP) approval in April 2017 (CVRWQCB, 2017), the jurisdiction for managing onsite wastewater treatment systems (OWTS) came under their purview for systems that received only domestic wastewater from residential or commercial buildings with an average daily flow of less than 10,000 gallons per day. Otherwise, the CVRWQCB regulates larger wastewater treatment systems.

In order to obtain a septic system permit for Site 300 from the SJCEHD, a number of requirements must be satisfied from various regulatory departments:

- 1. San Joaquin County (SJC) Building Department
 - Send the building inspector the finalized site drawings of the proposed building for building review
- 2. SJC Planning Department
 - No land use permitting is required for Site 300 if a SJC building permit is not issued
- 3. SJCEHD
 - Perform a percolation test with instructions from the department website
 - Complete a soil suitability study
 - Complete a nitrate loading study

5.3. Septic System Construction

In the fall of 2019, an OWTS permit was approved by the SJCEHD for a septic system construction for a trailer addition (T8021). The septic tank and leach fields were inspected by SJCEHD on October 31, 2019 and approved. Construction of the septic system was completed in November 2019.

A building renovation and addition near Building 899 has been proposed including designs for a new septic system and leach fields. Construction has not started as the project is currently going out to bid as of February 2020. Updates will be provided in the upcoming semi-annual report.

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Acknowledgments

The compliance-monitoring program supporting the permit WDR R5-2008-0148 is large and could not be performed without the dedicated efforts of many people. The completion of this report, and the groundwork laid for future report submissions, would not have been possible without the invaluable and timely technical contributions of Tyler Jackson, Suzie Chamberlain, and Jim Woollett.

Appreciation is due to Environmental Restoration Department (ERD) sampling technologists Eric Walter and Mario Silva, and Karl Brunckhorst and Ty Grace from the Environmental Functional Area (EFA) for their field sampling support. Data management assistance was performed by Kim Swanson (EFA) and Suzie Chamberlain (ERD). Jonathan McKaskey (ERD) provided graphic arts contributions; Maria Glenn-Padilla from EFA provided administrative and document preparation assistance. Additional appreciation goes to Jason Graham, Jason Wittig, TJ Soto, Mark Krauhs, Joseph Walker, Michael Gutierrez, Travis Madden, and Terry Cunningham for conducting Site 300 inspections, providing inspection data, and providing updates to the processes for maintenance and operations of Site 300 wastewater discharge. EFA greatly appreciates the diligent review of the report from the Site 300 Special Projects Manager, Jim Woollett, and from the Site 300 Manager, Valerie Dibley, for her support in this effort. Lastly, much appreciation goes to Michael Taffet, Professional Geologist from ERD, who provided technical review, editing, and comments on the report.

Appendix A

Sewage Evaporation and Percolation Pond Network

- Sewer Pond Figures
- Sewer Pond Tables (well specifications)
- Field Tracking Forms/Chain of Custody Forms
- Sewer Pond Inspection Reports
- Ground Water Sampling Data Forms

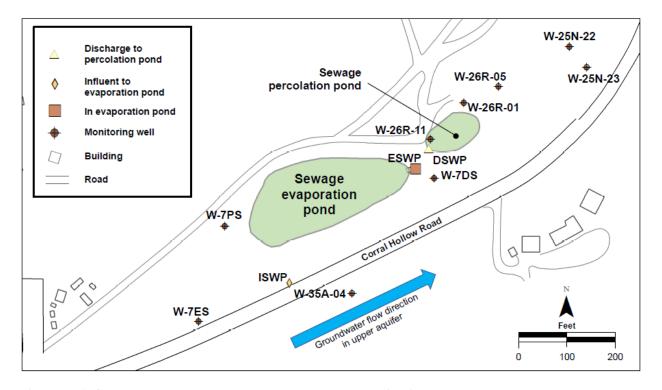


Figure A-1. Sewer pond wastewater and groundwater monitoring network.

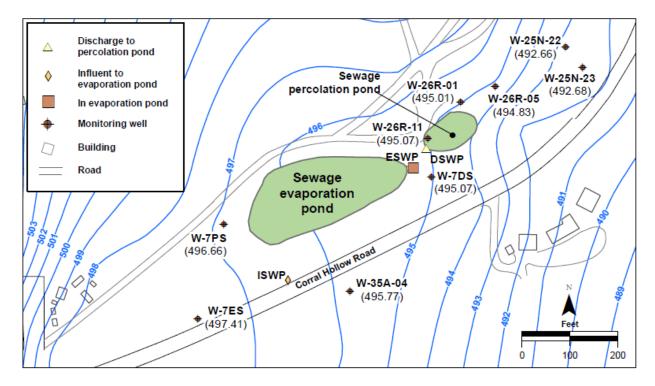


Figure A-2. Site 300 sewer pond wastewater and effluent monitoring network with groundwater elevation (ft-above mean sea level).

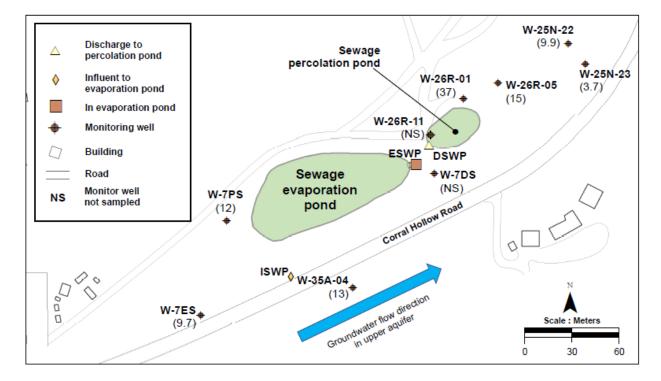


Figure A-3. Site 300 sewer pond wastewater and effluent monitoring network with nitrate (NO₃) concentration (in mg/L).

Table A-1. Summary of Site 300 sewer pond well specifications.

Well	HSU	Easting	Northing	Ground surface elevation	Measuring point elevation	Screen top elevation	Screen bottom elevation	Bentonite top elevation	Filter pack top elevation	Well bottom elevation
W-7ES	Qal-Tnbs ₁	1,711,719	414,586	506.41	509.71	491.41	481.41	496.41	495.41	479.61
W-7PS	Qal-Tnbs ₁	1,711,773	414,782	506.10	508.78	489.60	486.60	494.10	492.10	486.60
W-35A-04	Qal-Tnbs ₁	1,712,036	414,642	504.07	503.98	485.07	475.07	494.87	486.27	475.07
W-26R-01	Qal-Tnbs ₁	1,712,267	415,036	506.74	509.71	486.94	481.94	494.24	490.74	476.94
W-26R-11	Qal-Tnbs ₁	1,712,198	414,961	504.93	507.21	489.13	479.13	493.13	491.13	477.93
W-26R-05	Qal-Tnbs ₁	1,712,339	415,070	511.31	513.11	491.11	486.11	500.81	498.81	485.81
W-25N-20*	Qal-Tnbs ₁	1,712,371	414,923	502.11	504.94	490.11	475.11	494.61	492.61	474.11
W-7DS	Qal-Tnbs ₁	1,712,206	414,880	503.30	506.60	487.80	477.80	491.80	489.80	476.30
W-25N-22	Qal-Tnbs ₁	1,712,486	415,152	510.25	513.06	492.25	482.25	497.25	495.25	481.75
W-25N-23	Qal-Tnbs ₁	1,712,521	415,109	507.58	510.39	488.58	473.58	495.08	493.08	472.28

Notes:

All measurements are made in feet; elevations are in feet above mean sea level.

HSU = Hydrostratigraphic unit.

 $Qal-Tnbs_1 = Miocene Neroly Formation Lower Blue Sandstone.$

*Well W-25N-20 Abandoned

Table A-2. Site 300 sewer pond groundwater monitoring network 2019 ground water elevation summary.

Well	Date sampled	Pre-sampling	Ground water depth (ft.)	Ground water elevation (ft. above MSL)
	Jan 15		21.6	488.1
	Mar 13	PS	9.2	500.5
	Mar 14	PS	9.2	500.5
	Apr 9		9.0	500.7
W 7EC	May 20	PS	9.3	500.4
W-7ES	May 21	PS	9.3	500.4
	Jul 24		12.3	497.4
	Oct 23		16.5	493.2
	Dec 11	PS	16.4	493.3
	Dec 12	PS	16.4	493.3
	Jan 15		>18.3 [DRY]	<490.5 [DRY]
	Mar 13	PS	9.2	499.5
	Mar 14	PS	9.2	499.6
	Apr 9		9.2	499.6
W 7DC	May 20	PS	9.5	499.3
W-7PS	May 21	PS	9.5	499.3
	Jul 24		12.1	496.7
	Oct 23		16.1	492.7
	Dec 9	PS	17.2	491.6
	Dec 10	PS	17.2	491.5
	Jan 28		15.8	488.2
	Mar 13	PS	13.2	490.9
	Mar 14	PS	13.2	490.9
	Apr 3		5.0	499.1
W 25 A 04	Jun 3	PS	5.7	498.4
W-35A-04	Jun 4	PS	5.7	498.4
	Aug 7		8.3	495.8
	Oct 17		11.5	492.5
	Dec 16	PS	12.8	491.2
	Dec 17	PS	12.9	491.2
	Jan 15		24.8	485.3
	Mar 11	PS	15.8	494.3
W 25N 22	Mar 12	PS	15.8	494.2
W-25N-23	Apr 9		16.0	494.1
	Jul 24		17.4	492.7
	Oct 23		20.7	489.4
	Jan 15		27.1	485.7
	Mar 11	PS	18.9	493.8
W 25N 22	Mar 12	PS	19.0	493.8
W-25N-22	Apr 9		18.7	494.0
	Jul 24		20.1	492.7
	Oct 23		23.1	489.6

Table A-2. Site 300 sewer pond groundwater monitoring network 2019 ground water elevation summary continued.

Well	Date sampled	Pre-sampling	Ground water depth (ft.)	Ground water elevation (ft. above MSL)
	Jan 15		23.0	486.7
	Mar 11	PS	12.2	497.5
	Mar 12	PS	12.2	497.5
	Apr 9		12.4	497.3
W-26R-01	May 13	PS	12.3	497.4
	May 14	PS	12.3	497.4
	Jul 24		14.7	495.0
	Oct 23		18.5	491.2
	Dec 9	PS	19.2	490.5
	Dec 10	PS	19.2	490.5
	Jan 15		25.5	487.6
	Mar 11	PS	16.2	496.9
	Mar 14	PS	16.2	496.9
	Apr 9		16.2	496.9
W-26R-05	May 13	PS	16.9	496.2
W-20K-03	May 21	PS	16.9	496.2
	Jul 24		18.3	494.8
	Oct 23		21.7	491.4
	Dec 9	PS	21.1	492.0
	Dec 17	PS	21.1	492.0
	Jan 15		20.3	486.6
W 26D 11	Apr 9		9.4	497.5
W-26R-11	Jul 24		11.8	495.1
	Oct 23		15.7	491.2
	Jan 15		19.7	486.7
W-7DS	Apr 9		8.7	497.6
W-/D3	Jul 24		11.2	495.1
	Oct 23		15.1	491.2

Table A-3. Site 300 sewer pond wastewater monitoring network 2019 coliform, anion, and physical characteristic data summary.

Well	Date	pН	Specific Conductance µmhos/cm	Biochemical Oxygen Demand mg/L	Dissolved Oxygen mg/L	Fecal Coliform MPN/100mL	Total Coliform MPN/100mL	Sodium mg/L
3-ESWP-OW	Apr 30	9.7	7400	43	19	1600	>1600	1700
3-ESWP-OW	Sep 24	9.6	8500	67	40	>1600	>1600	2300
3-ISWP-OW	Apr 30	8.8	2000	200	-	-	-	-
3-13 WP-OW	Sep 24	9.0	1800	280	-	-	-	-

Note:

⁻ = Analysis not required.

Table A-4. Site 300 sewer pond wastewater monitoring network 2019 metals data summary.

Analyte (μg/L)	Date	3-ESWP-OW
Aluminum	Apr 30	<100
Alullillulli	Sep 24	510
Arsenic	Apr 30	7.1
Arsenic	Sep 24	10
Barium	Apr 30	58
Darium	Sep 24	<50
Boron	Apr 30	7300
DOIOII	Sep 24	8400
Cadmium	Apr 30	<100
Cadmium	Sep 24	<100
C-1-i	Apr 30	10000
Calcium	Sep 24	12000
Chromium	Apr 30	5.9
Chromium	Sep 24	9.3
Hexavalent Chromium	Apr 30	<1
Hexavalent Chromium	Sep 24	<1
C	Apr 30	10
Copper	Sep 24	16
Ţ	Apr 30	230
Iron	Sep 24	780
т 1	Apr 30	<10
Lead	Sep 24	<10
M '-	Apr 30	3900
Magnesium	Sep 24	4800
M	Apr 30	<60
Manganese	Sep 24	190
M	Apr 30	< 0.8
Mercury	Sep 24	< 0.2
M - 1- 1- 1	Apr 30	160
Molybdenum	Sep 24	190
NI' 1 1	Apr 30	8.3
Nickel	Sep 24	11
D	Apr 30	82000
Potassium	Sep 24	100000
a. 1	Apr 30	5.8
Selenium	Sep 24	<4
0.1	Apr 30	<20
Silver	Sep 24	<20
77 1'	Apr 30	<40
Vanadium	Sep 24	<40
Zinc	Apr 30	67

Table A-5. Site 300 sewer pond wastewater monitoring network 2019 QA data.

Well	Date	Туре	pН	Specific Conductance µmhos/cm	Biochemical Oxygen Demand mg/L	Dissolved Oxygen mg/L	Fecal Coliform MPN/100mL	Total Coliform MPN/100mL	Sodium mg/L
3-ESWP-OW	Apr 30	Routine	9.7	7400	43	19	1600	>1600	1700
3-ESWP-OW	Apr 30	Duplicate	8.8	-	-	-	-	-	-
2 ICMD OW	Sep 24	Routine	9.0	1800	280	-	-	-	-
3-ISWP-OW	Sep 24	Duplicate	8.4	-	-	-	-	-	-

Note:

-= Analysis not required.

Table A-6. Site 300 sewer pond groundwater monitoring network 2019 anions data summary.

Well	Date	Sodium mg/L	Chloride mg/L	Nitrate (as NO ₃) mg/L	Sulfate mg/L	Fluoride mg/L
W-7ES	Mar 13	110	84	12	200	0.34
W-7ES	May 20	-	-	8.8	-	-
W-7ES	Sep 18	140	130	8.7	290	0.31
W-7ES	Dec 11	-	-	9.3	-	-
W-7PS	Mar 13	120	92	13	180	0.37
W-7PS	May 20	-	-	11	-	-
W-7PS	Sep 9	180	140	11	260	0.31
W-7PS	Dec 9	-	-	12	-	-
W-35A-04	Mar 13	130	110	14	260	0.38
W-35A-04	Jun 3	-	-	14	-	-
W-35A-04	Sep 18	150	130	13	290	0.33
W-35A-04	Dec 16	-	-	12	-	-
W-25N-23	Mar 11	180	140	11	350	0.41
W-25N-23	Sep 4	170	120	3.7	390	0.45
W-25N-22	Mar 11	190	170	9.7	510	0.34
W-25N-22	Sep 4	170	140	9.9	500	0.30
W-26R-01	Mar 11	180	150	28	230	0.27
W-26R-01	May 13	-	-	23	-	-
W-26R-01	Sep 9	190	140	22	240	0.29
W-26R-01	Dec 9	-	-	37	-	-
W-26R-05	Mar 11	170	120	18	230	0.31
W-26R-05	May 13	-	-	21	-	-
W-26R-05	Sep 9	160	130	15	230	0.28
W-26R-05	Dec 9	-	-	4.2	-	-

Note:

Wells W-7DS and W-26R-11were inoperable this second semester. A work order has been requested for repair.

⁻⁼ Analysis not required.

Table A-7. Site 300 sewer pond groundwater monitoring network 2019 coliform data summary.

Well	Date	Fecal Coliform MPN/100mL	Total Coliform MPN/100mL
W-7ES	Mar 14	<1.8	<1.8
W-7ES	May 21	<1.8	2.0
W-7ES	Sep 19	<1.8	<1.8
W-7ES	Dec 12	<1.8	2.0
W-7PS	Mar 14	<1.8	<1.8
W-7PS	May 21	<1.8	<1.8
W-7PS	Sep 10	<1.8	49
W-7PS	Dec 10	<1.8	<1.8
W-35A-04	Mar 14	<1.8	<1.8
W-35A-04	Jun 4	<1.8	49
W-35A-04	Dec 17	<1.8	>1600
W-25N-23	Mar 12	<1.8	2.0
W-25N-23	Sep 5	<1.8	<1.8
W-25N-22	Mar 12	<1.8	<1.8
W-25N-22	Sep 5	<1.8	<1.8
W-26R-01	Mar 12	<1.8	<1.8
W-26R-01	May 14	<1.8	<1.8
W-26R-01	Sep 10	<1.8	<1.8
W-26R-01	Dec 10	<1.8	<1.8
W-26R-05	Mar 14	<1.8	<1.8
W-26R-05	May 21	<1.8	<1.8
W-26R-05	Sep 12	<1.8	32
W-26R-05	Dec 17	<1.8	3.6

Note:

Wells W-7DS and W-26R-11 were inoperable this second semester. A work order has been requested for repair.

Table A-8. Site 300 sewer pond groundwater monitoring network 2019 physical chemistry data.

Well	Date	pН	Specific Conductance µmhos/cm	Total Alkalinity (as CaCO ₃) mg/L	Total dissolved solids (TDS) mg/L	Total Hardness (as CaCO ₃) mg/L	Total Phosphorus (as PO ₄) mg/L
W-7ES	Mar 13	7.9	1070	220	730	310	<1
W-7ES	May 20	8.0	1220	-	-	-	-
W-7ES	Sep 18	8.0	1440	260	1000	460	<1
W-7ES	Dec 11	8.0	1430	-	-	-	-
W-7PS	Mar 13	7.9	1080	220	750	260	<1
W-7PS	May 20	8.0	1310	-	-	-	-
W-7PS	Sep 9	7.7	1450	280	960	330	<1
W-7PS	Dec 9	7.6	1450	-	-	-	-
W-35A-04	Mar 13	8.0	1330	260	860	370	<1
W-35A-04	Jun 3	7.8	1290	-	-	-	-
W-35A-04	Sep 18	7.9	1440	280	1100	440	<1
W-35A-04	Dec 16	7.8	1460	-	-	-	-
W-25N-23	Mar 11	7.5	1530	230	1000	370	<1
W-25N-23	Sep 4	7.7	1550	240	1000	420	<1
W-25N-22	Mar 11	7.8	1880	240	1300	500	<1
W-25N-22	Sep 4	7.9	1750	220	1200	510	<1
W-26R-01	Mar 11	7.8	1410	240	920	260	<1
W-26R-01	May 13	7.9	1360	-	-	-	-
W-26R-01	Sep 9	7.8	1390	250	930	240	<1
W-26R-01	Dec 9	7.9	1410	-	-	-	-
W-26R-05	Mar 11	8.1	1330	260	860	270	<1
W-26R-05	May 13	8.2	1360	-	-	-	-
W-26R-05	Sep 9	8.0	1320	240	880	260	<1
W-26R-05	Dec 9	8.1	1140	-	-	-	-

Note:

Wells W-7DS and W-26R-11 were inoperable this second semester. A work order has been requested for repair.

⁻ = Analysis not required.

Table A-9. Site 300 sewer pond groundwater monitoring network 2019 metals data summary.

Analyte (µg/L)	Month	W-7ES	W-7PS	W-35A-04	W-25N-23	W-25N-22	W-26R-01	W-26R-05
41 '	Mar	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Aluminum	Sep	< 50	< 50	< 50	< 50	< 50	< 50	< 50
	Mar	2.4	3.8	3.1	8.9	11	9.1	8.6
Arsenic	Sep	<2	3.2	2.8	10	10	7.9	8.1
	Dec	-	-	3.6	-	-	-	-
	Mar	32	41	35	28	36	32	34
Barium	Sep	47	59	42	29	35	32	32
	Dec	-	-	43	-	-	-	-
D	Mar	1700	1500	2200	1600	1700	1500	1300
Boron	Sep	2200	2100	2300	1500	1300	1500	1300
	Mar	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Cadmium	Sep	< 50	< 50	< 50	< 50	< 50	< 50	< 50
	Dec	-	-	< 0.5	-	-	-	-
Calcium	Mar	70000	60000	83000	89000	120000	65000	69000
Calcium	Sep	100000	76000	100000	100000	120000	60000	65000
	Mar	5.7	6.1	7.1	4.5	4.3	5.1	5.2
Chromium	Sep	<1	<1	1.1	1.4	1.0	<1	<1
	Dec	-	-	2.5	-	-	-	-
Hexavalent Chromium	Mar	<1	1.1	<1	<1	<1	<1	<1
nexavaient Chromium	Sep	<1	<1	<1	<1	<1	<1	<1
	Mar	1.6	2.7	3.3	2.4	3.7	2.2	1.9
Copper	Sep	<1	1.5	1.4	2.5	4.0	2.3	1.9
	Dec	-	-	<10	-	-	-	-
I	Mar	<100	<100	<100	<100	<100	<100	<100
Iron	Sep	<100	<100	<100	<100	<100	<100	<100
	Mar	<5	<5	<5	<5	<5	<5	<5
Lead	Sep	<5	<5	<5	<5	<5	<5	<5
	Dec	-	-	<2	-	-	-	-
Magnagium	Mar	33000	26000	40000	35000	49000	23000	25000
Magnesium	Sep	47000	34000	45000	40000	49000	22000	25000

Table A-9. Site 300 sewer pond groundwater monitoring network 2019 metals data summary continued.

Analyte (μg/L)	Month	W-7ES	W-7PS	W-35A-04	W-25N-23	W-25N-22	W-26R-01	W-26R-05
M	Mar	<30	<30	<30	<30	<30	<30	<30
Manganese	Sep	<30	<30	<30	<30	<30	<30	<30
	Mar	< 0.2	< 0.2	0.28	< 0.2	< 0.2	< 0.2	< 0.2
Mercury	Sep	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	Dec	-	-	< 0.2	-	-	-	-
	Mar	<25	<25	<25	<25	<25	<25	<25
Molybdenum	Sep	<25	<25	<25	<25	<25	<25	<25
	Dec	-	-	<25	-	_	_	_
	Mar	2.1	5.1	2.4	3.1	4.9	<2	<2
Nickel	Sep	<2	2.0	<2	2.0	3.7	<2	<2
	Dec	-	-	<5	-	_	_	_
	Mar	3700	4600	4400	9800	12000	10000	11000
Potassium	Sep	5300	6100	5300	11000	12000	11000	12000
	Dec	-	-	5000	-	-	-	-
	Mar	7.0	11	7.3	10	8.9	11	7.5
Selenium	Sep	3.0	9.7	3.0	2.9	4.1	7.1	5.3
	Dec	-	-	6.2	-	_	_	_
	Mar	<10	<10	<10	<10	<10	<10	<10
Silver	Sep	<10	<10	<10	<10	<10	<10	<10
	Dec	-	-	< 0.5	-	-	-	-
	Mar	<20	<20	<20	<20	<20	<20	<20
Vanadium	Sep	<20	<20	<20	<20	<20	<20	<20
	Dec	-	-	<10	-	_	-	-
	Mar	31	30	26	33	45	40	36
Zinc	Sep	<20	<20	<20	<20	25	27	<20
	Dec	-	-	<20	-	-	-	-

Note:

Wells W-7DS and W-26R-11 were inoperable this second semester. A work order has been requested for repair.

Table A-10. Site 300 sewer pond groundwater monitoring network second semester 2019 QA data.

Constituent	Units	W-7ES			W-7PS			W-26R-01			W-26R-05						
		Dec 11	Dec 11	Dec 12	Dec 12	Sep 9	Sep 9	Sep 10	Sep 10	Sep 9	Sep 9	Sep 10	Sep 10	Dec 9	Dec 9	Dec 17	Dec 17
		R	D	R	D	R	D	R	D	R	D	R	D	R	D	R	D
pН	Units	8.0	8.0	-	-	7.7	7.7	-	-	7.8	7.8	-	-	8.1	8.0	-	-
Specific Conductance	μmhos/cm	1430	1430	-	-	1450	1440	-	-	1390	1390	-	-	1140	1170	-	-
Fecal Coliform	MPN/100mL	ı	1	<1.8	<1.8	ı	-	<1.8	<1.8	ı	-	<1.8	<1.8	-	-	<1.8	<1.8
Total Coliform	MPN/100mL	-	-	2.0	540	-	-	49	79	-	-	<1.8	<1.8	-	-	3.6	7.8
Nitrate (as NO ₃)	mg/L	9.3	9.7	-	-	11	11	-	-	22	22	-	-	4.2	4.3	-	-

 $\label{eq:Note: R-Routine} Note: R-Routine \\ D-Duplicate$

FIELD TRACKING FORM INFLUENT TO SITE 300 SEWAGE POND

DATE: 9/24/19

TIME: 9:40

Lab	Alpha Lab
CoC#	80746
Ship It #	249317

Special Instructions:

Semi-Annual Sampling in 2nd and 4th Quarters (April & Oct)

pH meter calibrated Conductivity meter calibrated

DO meter calibrated

3/24/19

Print collection time on sample bottles.

BOD Hold Time 48hr. Conductivity/pH Hold Time 24hr.

Samples should be taken after 1 p.m. during higher flow.

		Field Measu	rements				Samples for Lab Analysis
Location	рН	COND	DO (PPM)	Temp (°C)	Comments	Initials	
3-ISWP-01-OW							Analytical Codes:
(Influent to Sewage Pond)	8.58	1478	2.89	2.1.7		K8.70, PC	E120.1A & E150.1A (Conductivity/pH) (2 X 250-mL poly)
3-WSWP-01-OW duplicate of 3-ISWP-01-OW	8.58	1478	2.89	21.7			SM5210B-A (BOD) (1 X 1 Liter poly)

2Q2019 Duplicate

See ESWP Field Tracking Form

4Q2019 Duplicate

E150.1A

Copy to Analysts, Ada Chan.

FIELD TRACKING FORM EAST END OF SITE 300 SEWAGE POND

 Lab
 Alpha
 BC

 CoC#
 80746
 80747

 Ship It#
 249317
 249319

DATE: 9/24/19

TIME: 0950

Special Instructions: Semi-Annual Sampling in 2nd and 4th Quarters (April & Oct)

Samples should be taken after 1 p.m.

Print collection time on sample bottles.

DO/conductivity/pH hold time 24 hr.

pH meter calibrated	9/24/19
Conductivity meter calibrated	3/24/19
DO meter calibrated	9/24/19

		Field Me	easuren	nents				Samples for Lab Analysis
Location	рН	COND	Depth	DO (PPM)	Temp ('C)	Comments	Initials	
3-ESWP-01-OW			1				45	Alpha LAB
(East end of Sewage Pond)			1					E360.1 DO (1x300mL PET Poly with glass stopper)
								E120.1A & E150.1A Conductivity/pH
	9.65	8.69 ms		18.67	20,C		76	(2x250-mL poly)
								SM9221 Total, Fecal Coliform (1x125mL sterilized poly) 6hr hold
3-WSWP-01-OW								SM5210B-A BOD (1x1 Liter poly)
duplicate of								
3-ESWP-01-OW								BC Labs
								S3METALS (1X500mL Poly)

2Q2019 Duplicate

E150.1A

4Q2019 Duplicate

See ISWP Field Tracking Form

Copy to Analysts, Ada Chan.

Chain of Custody

EFA Data Management Team Lawrence Livermore National Laboratory P.O. Box 808 L-627 Livermore, CA 94551

Work Authorize	d By: EFA	
TRR Approver:	DELLA BURRUSS	
Project Info:		

Access/COC #:80746	_ Analytical Lab : ALPHAANAL
Document Control #: 80746	TAT: 20d
Requester/LLNL Analyst: A. Chan	Analytical Lab Log #:
Organization / Sampler: EFA / brunckhorst2	Project/Network: WDRPOND
PCI Project #: 44497	Shiplt Release #: 249317

Add'l Email:

PCI Task #: ES&H Bills and Taxes
Email: efa-dmt@llnl.gov

DMT Additional Copies:

ralytical Lab : ALPHAANAL
TAT: 20d
cal Lab Log #:
ject/Network: WDRPOND

Additional Instructions:

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Chain of Custody

EFA Data Management Team	Access/COC #: 80747	Analytical Lab : BCLABS-BAK	Additional Instructions
Lawrence Livermore National Laboratory	Document Control #: 80747	TAT: 20d	}
P.O. Box 808 L-627	Requester/LLNL Analyst: A. Chan	Analytical Lab Log #:	
Livermore, CA 94551	Organization / Sampler: EFA / brunckhor	st2 Project/Network: WDRPOND	
	PCI Project #: 44497	Shiplt Release #: 249319	
Work Authorized By: EFA	PCI Task #: ES&H Bills and	Taxes Add'l Email:	.1
TRR Approver: DELLA BURRUSS	Email: efa-dmt@linl.gov	<i>,</i>	.]
Project Info:	DMT Additional Copies:		<u> </u>

	Sample ID		Sampled Date/Time	Matrix	Cont. Type	Cont. Count		Study Area	Req. Analysis	Analysis Detail	Lab insti	ructions
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YEAR 2019 MONTH JULY

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6	70	241	1230	טו	8.05	72.0	1255	10	8.09	71.8				910	WhE	N	2		N	V.
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YEAR 2019

MONTH Aug,

			Flow			Aerators		1	Г		
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			Flow			Aerators]			
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				Treat	ment P	OND 1	3X p	er weel	(Obse	rvations	3			
		Fbd.		Pone	d East			Pond	West	· <u>-</u>	 	Color		г —	<u> </u>	<u> </u>	_			
Day	Op. Ini	ft	Time	D.O. mg/L	рН	Temp	Time	D.O. mg/L	рН	Temp	Green	Brown	Brown	Air temp	Wind	Odor Yes/No	Solids Yes/No	insects Yes/No	Scum Yes/No	Algae Yes/No
	36	19.	1438	12	499	69.7	1515	10	5.12	699	- V			670	WHE	N	N	V	70	X
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9	30	16"	1530	ाप	4.70	69.1	1545	14	५,73	69.1	V			70	ChW	2	N		, N	4
16	<u> </u>	14.5	1310	12	4.91	69.8	<i>[</i> 330	17	5.01	69.6	V			750	Wha	7	7		N	V
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LLNL Site 300 Sewer / Wastewater Evaporation Pond Weekly Inspection & Monitoring Report

YEAR 2019

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			Flow			Aerators							Own Have Developed
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					Treat	ment P	OND 1	3X p	er wee	k						Obse	rvations	3			
	Op.	F	Fbd.		Pon	d East			Pond	West			Color								
Day	lni		ft	Time	D.O. mg/L	рН	Temp		D.O. mg/L	pН	Temp	Green	Brown Green	Brown	Air temp	Wind	Odor Yes/No	Solids Yes/No	Insects Yes/No	Scum Yes/No	Algae Yes/No
3	<i>≾</i> 6	$\overline{}$	7	1301	8	4.44	648	7314	10	5.01	661	V			50	N45	11/	N	V	1/	7
5			2	1430	12	5.77	75	1415	10	4.99	69.8	V			750	Nhs	N	N	/	N	1
		Τ,		457									/	_			10		/ _		//
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12		ľ	2.5	1500	12	5.01	57.1	1500	12	480	56.9	1			730	Ehw	1	-~		~	V
14		12	2.5	1201	10	5.11	57.9	1215	10	4.99	60.9				72'	WFE	N	7	V	N	1
17		1/3	2,5	1245	12	4.50	56.1	[3W	10	4.65	56.1				70	Elow	7	~	V	N	
19		12	2,5	1530	10	4.99	56.8	1540	10	5.63	30, L	V			600	WHE	N	N	/	N	
24	+	13	3"	1310	10	4.56	56.3	1334				1/			540	WAE	N	N	7	N	-
76	-			500		6,31			7	601							~	,	1		7
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LLNL Sits 300 Sewer / Wastewater Evaporation Pond Weekly Inspection & Monitoring Report

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MONTH NOW

		Flow			Aerators					Over Flau Pari
ay Opa in	MOLET	Current Mater 870348		1 1	2 On/Off	1 1	-	Water Level	Overall Condition Poor/Fair	Note any animal burrows, erosion or weeds
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YEAR 2019 MONTH DEC.

				Treat	ment F	POND 1	3X p	er weel	k						Obse	rvations				<u> </u>
	Op.	Fbd.			d East			Pond	West			Color		4:					·	
Day	lni	ft	Time	D.O. mg/L	рН	Temp	Time	D.O. mg/L	рН	Temp	Green	Brown Green	Brown	Air temp	Wind	Odor Yes/No	Solids Yes/No	Insects Yes/No	Scum Yes/No	Algae Yes/No
\Box	56-	<i>[7.5]</i>	1300	10	5.24	56.34	/330	8	5.60	5628	У			530	EfoW	N	N	N	1/	V
3	56	11.5	1415	8	5.10	7/01	11120	्र	11 00	56.01	V			,0		4,				
		/// /							7.71	J6.01	LX			55°	EFOW	N	2	\sim	/	1
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9	56-	// 11	1515	13	3.24	54.7	1500	14	308	54.9	X			650	EPOW	N	N	N	V	
15	56	1/"	0900	10	4.11	53.9	0920	12	431	<i>63.</i> 5	V			500	ELW	N	N	a	7	
17	36	7/ 11	1230	10	<u></u> .	1	1500	10	,	53,8				51°	WHE	N	N	N	7	7
19	76-	114	1430	2										/			,,,		γ	
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23	36	- [["	30	10	4.99	53.9	1330	(0)	4.08	542				49	Wp/=	1	·N	N	Y	Y
29	JR	1/	0500	13.	3.72	46.9	0530	11	2.3/	44.9	V			50	Efon		N	N	V	X
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YEAR 2019

MONTH DEC

			Flow			Aerators						Over Flow Basin
Day (Op mi		Gurrent Mater		1 On/Oil		3 On/OH	4H	Water Level	Ove Cond Poor	Jiton .	Note any animal burrows, erosion or weeds
-+	75	- +	383805		0D	ON	ON	OFF	1	100		
+	H		89185					1				
1-	1:		84199							 		Cable on 4th gentor is
#	#		8419									broken off-
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Ta	rget S	Sample Date:	U9-DEC-20	113		Month: N	orm Qtr: 4	MOIM Year:	2019
WELL ID:			W-7DS			AREA INFO:		S300/GSA/EG	SA
DATE:		09-Dec-2019	<u> </u>	LOG BOOK (DOCUMENT	CONTROL) #:		AA40040	
PURGE ME	THOD/S	SAMPLE METHOD	: Grund	fos / 3VES		CONTAMINANT	PRESENT:		ND
SCREENED	INTER	RVAL (ft-bmp)	:18	.80 - 28.80		PUMP INTAKE	DEPTH:		27.80
CASING D	EPTH(i	.nstalled/sou	nded)(ft-	bmp): 27.00	/ 30.30	0 on 17-MAY-1	7 CASING	VOL (Gal/T	ime): 12.31
DEPTH TO	WATER	R(ft-bmp):	15.10 on	23-OCT-19			VOLUME	FACTOR: 0	. 826
WATER IN	CASIN	IG (ft): 14	1.90			CASING DIAME	TER/TCASING	HT(in):	4.5 / 3.00
TIME PUM	P ON:_					INITIAL FLOW	RATE (Q=GPM	1):	
TIME PUM	P OFF:					MEASURED BY:	FLOW METER/	GRAD CYL./	BUCKET/ OTHER
TIME	Q	GAL PURGED	VOLUMES	рН	TEMP C	sc	mV	OG	DTW
	-								
					-				
			-						
									<u> </u>
45555		CDDTAT	u	GAT TODAMED		CAMPLED / EMPL	OVED .	(/ mil.mag	. /
METER		SERIAL 7		CALIBRATED YES/NO		SAMPLER/EMPL	OYER:	√ silva9 3CMF	
SC :				YES/NO		SAMPLE PRESE	RVATION/AMT		
				YES/NO		PURGE VOL/EX	CESS H2O DES	ST: <u>\36.93 /</u>	S300-DRUM
120:				YES/NO		TF LOCATION:		00€a	
QC SAMPL	E ID:_			QC LAB(S):			QC SAM	IPLE TIME:	
SAMPLE I	D (VEF	RIFY):				TIME COLLECT	ED:	***************************************	
AВ	L	AB_LOC_NAME		REQUEST	red anal	YSIS #	TYPE		SAMPLER_REMARKS
В		W-7DS		E30	0.0:003	1	250 ml P		_
В		W-7DS			624MOD	3	40 mL V		
В		W-7DS			M2510B	1	250 ml P		
B		W-7DS			44500PH	1	250 ml P		
A		W-7DS		£	SM9221	1	250 ml P		

Pump Noperable No Samples

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DEC 122019
ERD-DATA MGNT

Revision: 10/28/2015

Page: 1 of 1

Targ	get Sample Date:	11-DEC-20	19		month: N	orm Qtr: 4	Norm Year:	2013
WELL ID:		W-7E			AREA INFO:		S300/GSA/CG	SA
DATE:	11-Dec-201	9	LOG BOOK (DOCUMENT	CONTROL) #:		AA40042	
PURGE METH	OD/SAMPLE METHO	D: GF / 3	IVES		CONTAMINANT	PRESENT:		ND
SCREENED I	NTERVAL (ft-bmp): 61.	68 - 80.88		PUMP INTAKE	DEPTH:		78.00
								me): 52.87
	•							826 159.9
								1.5 / 2.58
ATER IN C	ASING (IE):	3.33		10	CASING DIAME	IER/ICASING	nr(111): <u>4</u>	/ 2.30
IME PUMP	ON:	0819			INITIAL FLOW	RATE (Q=GPM):	3.0 Q
IME PUMP	OFF:	an			MEASURED BE	FLOW METER	GRAD CYL./ B	UCKET/ OTHER
TIME	Q GAL PURGED	VOLUMES	Hq	TEMP C	sc	mV	OG	DTW
6657	53.3	\	7.41	20.8	1333	112		16,56
0455	106,6	2	7.40	21.0	1340	151	,	16.70
0913	1599	3	738	21,0	1344	89	(16.78
0915			7.40	21.0	1352	85		
0917			7.35	21,0	1350	88		
ETER	SERIAL	# (10044	CALIBRATED YES/NO		SAMPLER/EMPLO	OYER:		3CMP
			YES/NO		SAMPLE PRESE	RVATION/AMT	_	
V :	<u></u>		YES/NO YES/NO		PURGE VOL/EX		T: 158.61 / S300	S300-DRUM
	T.D		\forall		TF LOCATION:		-	
			í					
		W 10/					0-761	
B 3	LAB_LOC_NAME W-7E		-	red ANALY	KSIS #	TYPE 250 ml P		SAMPLER_REMARKS
) }	W-7E			624MOD		40 mL V		
3	W-7E			M2510B	1	250 ml P		
3	W-7E			M4500PH	1	250 ml P		
ACTION AND ADDRESS OF THE ACTION AND ADDRESS	W-7E		**	M9221	1	250 ml P		

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DEC 12 2019

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Ta	rget	Sample Date:	18-SEP-20	19		: 2019			
WELL ID:			W-7ES			AREA INFO:_		S300/GSA/C	GSA
DATE:		18-Sep-2019	9	LOG BOOK (DOCUMENT	CONTROL) #:		AA40008	
PURGE ME	THOD/	SAMPLE METHOD	: GF / :	3VES		CONTAMINANT	PRESENT:	, n	03-11
SCREENED	INTE	RVAL (ft-bmp)	:18.	.30 - 28.30		PUMP INTAKE	DEPTH:		26.30
CASING D	EPTH(installed/sou	inded)(ft-	bmp):_26.80	/ 30.10	on 21-JAN-8	37 CASING	G VOL (Gal/T	ime): 14.46 12.3x
DEPTH TO	WATE	R(ft-bmp):	12.30 on	24-JUL-19		5.18	VOLUM	E FACTOR: 0	.826 36,96
WATER IN	CASI	NG (ft):1	7.50	14.52		CASING DIAME	TER/TCASING	HT(in):	4.5 / 3.00
TIME PUM	P ON:		0900			INITIAL FLOW	RATE (Q=GPI	M):	2.5
TIME PUM	P OFF		0923	>		MEASURED BY	FLOW METER	GRAD CYL./	BUCKET/ OTHER
TIME	Q	GAL PURGED	VOLUMES	рН	TEMP C	sc	mV	OG	DTW
0905		12.3	· value de la constante de la	7.34	22.9	1473	37		15, 25
0910		24.6	2	1.3(13,0	1454	37	1	15.29
0915		36,9	3	1.30	23.0	1451	28	1	15,34
0517									
0919									
								1/	
METER	1	SERIAL #	4 ,	CALIBRATED	<u></u>	CAMPLED /FWDT	OUTD	//	
pH :		C	10084	Yes/no		SAMPLER/EMPL PROJECT:		silva9	, /
				YES/NO			RVATION/AMT		
H2O:				YES/NO			CESS H2O DES		S300-DRUM
QC SAMPLI	E ID:	****	Manufacture.	QC LAB(S):		Continue	QC SAM	MPLE TIME:	gillation of the state of the s
SAMPLE II	D (VE	RIFY):					'ED:	7	
AB	L	AB_LOC_NAME	/	REQUEST	TED ANALY	rsis #	TYPE	-	SAMPLER REMARKS
BB		W-7ES			BANIONS	1	250 ml P		
BB.		W-7ES			METALS		500ml P		
BB		W-7ES		S3MET	ALS:FILT	ER 0	0		
3B		W-7ES		S3	WETCHEM	2	500ml P		
<u> </u>		W=7ES		***		_1			

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126	Та	rget S	Sample Date:	19-SEP-20	19	Month: Norm Qtr: 3 Norm Year: 2019						
CREENED INTERVAL (ft-bmp): 18.30 - 28.30 PUMP INTAKE DEPTH: 26.30 ASSING DEPTH (installed/sounded) (ft-bmp): 26.80 / 30.10 on 21-JAN-87 CASING VOL (Gal/Time): 14.46 (7.3 / 2.4 / 2	WELL ID:			W-7ES		***************************************	AREA INFO: S300/GSA/CGSA					
18.30 - 28.30 PUMP INTAKE DEPTH: 26.30 26.80 / 30.10 on 21-JAN-87 CASING VOL (Gal/Time): 14.46 (7.5% 2.5%	DATE:		19-Sep-201	9	LOG BOOK (DOCUMENT	CONTROL) #:		AA40008			
18.30 - 28.30 PUMP INTAKE DEPTH: 26.30 26.80 / 30.10 on 21-JAN-87 CASING VOL (Gal/Time): 14.46 (7.5% 2.5%	PURGE ME	THOD/S	AMPLE METHOD	: GF / 3	VES		CONTAMINANT	PRESENT:		NO3-11		
ATER IN CASING (ft): 17.50												
ATER IN CASING (ft): 17.50	CASING D	EPTH(i	nstalled/sou	ınded)(ft-b	omp): <u>26.80</u>	/ 30.10	on 21-JAN-8	CASING	G VOL (Gal	Time): 14.46	11.38	
ATER IN CASING (ft): 17.50	DEPTH TO	WATER	(ft-bmp):	12.30 on	24-JUL-19		15,18	VOLUMI	E FACTOR:	0.826	36.91	
IME PUMP ON: MG INITIAL FLOW RATE (Q=GPM): Z, GGAL IME PUMP OFF: NEASURED BY FLOW METER GRAD CYL./ BUCKET/ OTHER TIME Q GAL PURGED VOLUMES PH TEMP C SC MV OG DTW 11 3 1 7.37 73.9 (460 443 1 15.24 16.33 15.3	WATER IN	CASIN	G (ft): 1	7.50	14,0	il_	CASING DIAME	TER/TCASING	HT(in):	4.5 / 3.00		
MEASURED BE:FLOW METER GRAD CYL. BUCKET OTHER TIME Q GAL PURGED VOLUMES PH TEMP C SC MV OG DTW												
13												
103 36,4 37,0 1455 381 15,37 15,39 15,	TIME	Q	GAL PURGED	VOLUMES	рН	TEMP C	sc	mV	OG	DTW		
13 36 3 30 73 145 35 15 35 15 35 15 35 15 35 15 35 15 35 15 35 15 35 15 35 15 35 15 35 15 35 15 35 15 35 15 35 15 35 3	1421		11.3	1	7.37	77.9	1460	443		15.29		
13 23 14 50 266	1426		24.6	2	7.32	23.0	1455	387		15.37		
	1431		36.9	3	730	23.1	1451	351	4	15,39		
	1433				2-31	23.1	1450	266	i			
YES/NO SAMPLE PRESERVATION/AMT OF REAGENT: YES/NO PURGE VOL/EXCESS H20 DEST: 43.38 / S300-DRUM YES/NO TF LOCATION: S300 C SAMPLE ID: QC LAB(S): QC SAMPLE TIME: LAB LOC NAME REQUESTED ANALYSIS # TYPE SAMPLER REMARKS W-7ES S3ANIONS 1 250 ml P W-7ES S3METALS 1 500ml P W-7ES S3METALS 1 500ml P W-7ES S3METALS 1 500ml P W-7ES S3METALS 5 500ml P	1435				7.31	23,1	1451	220	l			
YES/NO SAMPLE PRESERVATION/AMT OF REAGENT: YES/NO PURGE VOL/EXCESS H20 DEST: 43.38 / S300-DRUM YES/NO TF LOCATION: S300 C SAMPLE ID: QC LAB(S): QC SAMPLE TIME: LAB LOC NAME REQUESTED ANALYSIS # TYPE SAMPLER REMARKS W-7ES S3ANIONS 1 250 ml P W-7ES S3METALS 1 500ml P W-7ES S3METALS 1 500ml P W-7ES S3METALS 1 500ml P W-7ES S3METALS 5 500ml P												
YES/NO SAMPLE PRESERVATION/AMT OF REAGENT: YES/NO PURGE VOL/EXCESS H20 DEST: 43.38 / S300-DRUM YES/NO TF LOCATION: S300 C SAMPLE ID: QC LAB(S): QC SAMPLE TIME: LAB LOC NAME REQUESTED ANALYSIS # TYPE SAMPLER REMARKS W-7ES S3ANIONS 1 250 ml P W-7ES S3METALS 1 500ml P W-7ES S3METALS 1 500ml P W-7ES S3METALS 1 500ml P W-7ES S3METALS 5 500ml P												
YES NO	METER		SERIAL 7	Closel c	ALIBRATED YES/NO			OYER:				
C SAMPLE ID: QC LAB(S): QC SAMPLE TIME: AMPLE ID (VERIFY): WFS/NO TF LOCATION: S300 C SAMPLE ID: QC SAMPLE TIME: AMPLE ID (VERIFY): TIME COLLECTED: IVIII LAB LOC NAME REQUESTED ANALYSIS # TYPE SAMPLER REMARKS WHO WAS SAMPLED TO THE COLLECTED: IVIII LAB LOC NAME REQUESTED ANALYSIS # TYPE SAMPLER REMARKS WHO WAS SAMPLED TO THE COLLECTED: IVIIII LAB LOC NAME REQUESTED ANALYSIS # TYPE SAMPLER REMARKS WHO WAS SAMPLED TO THE COLLECTED: IVIIII LAB LOC NAME REQUESTED ANALYSIS # TYPE SAMPLER REMARKS WHO WAS SAMPLED TO THE COLLECTED: IVIIII LAB LOC NAME REQUESTED ANALYSIS # TYPE SAMPLER REMARKS WHO WAS SAMPLED TO THE COLLECTED: IVIIII LAB LOC NAME REQUESTED ANALYSIS # TYPE SAMPLER REMARKS WHO WAS SAMPLED TO THE COLLECTED: IVIIII LAB LOC NAME REQUESTED ANALYSIS # TYPE SAMPLER REMARKS WHO WAS SAMPLED TO THE COLLECTED: IVIIII LAB LOC NAME REQUESTED ANALYSIS # TYPE SAMPLER REMARKS WHO WAS SAMPLED TO THE COLLECTED: IVIIII WHO WAS SAMPLED TO THE COLLECTED: IVIIII WHO WAS SAMPLED TO THE COLLECTED TO THE COL	SC : mV :											
LAB_LOC_NAME REQUESTED ANALYSIS # TYPE SAMPLER_REMARKS W 7ES SIANIONS I 250 ml P W 7ES SIMETALS -1 500ml P W 7ES SIMETALS -1 500ml P W 7ES SIMETALS -500ml P	H2O:	***************************************								7 3390-DRUM		
LAB_LOC_NAME REQUESTED ANALYSIS # TYPE SAMPLER_REMARKS W-7ES \$3ANIONS 1 250 ml P W-7ES \$3METALS 1 500ml P W-7ES \$3METALS+FIBTER 0 0 W-7ES \$3WETCHEM -2 500ml P	QC SAMPLI	E ID:_		•	QC LAB(S):		Space of the space	QC SAM	IPLE TIME:_			
LAB_LOC_NAME REQUESTED ANALYSIS # TYPE SAMPLER_REMARKS W-7ES \$3ANIONS 1 250 ml P W-7ES \$3METALS 1 500ml P W-7ES \$3METALS+FIBTER 0 0 W-7ES \$3WETCHEM -2 500ml P	SAMPLE II	O (VER	IFY):	<u></u> ω-	785/30	ES .	TIME COLLECT	ED:	(1440		
W-7ES S3METALS 1 500ml P W-7ES S3METALS+FIBTER 0 0 W-7ES S3WETCHEM 2 500ml P	∖ B	LAI	B_LOC_NAME								KS	
W-7ES S3WETCHEM 2 500ml P	В				****					_		
W-7ES S3WETCHEM 2 500ml P	B B		*									
	В		-					-				
TIPLE TO THE F	A							_				
					_		-					

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SEP 2 6 2019
ERD-DATA MGMT

WELL ID: W-7ES AREA INFO: S300 DATE: 11-Dec-2019 LOG BOOK (DOCUMENT CONTROL) #: AA PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT: SCREENED INTERVAL (ft-bmp): 18.30 - 28.30 PUMP INTAKE DEPTH:	
PURGE METHOD/SAMPLE METHOD: GF / 3VES CONTAMINANT PRESENT:	40042
SCREENED INTERVAL (ft-bmp): 18.30 - 28.30 PUMP INTAKE DEPTH:	NO3-11
	26.30
CASING DEPTH(installed/sounded)(ft-bmp): 26.80 / 30.10 on 21-JAN-87 CASING VOL	(Gal/Time): 10.96 ((3
DEPTH TO WATER(ft-bmp): 16.54 on 23-OCT-19 /6,5 VOLUME FAC	TOR: 0.826 33,90
WATER IN CASING (ft): 13.26 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	n):4.5 / 3.00
FIME PUMP ON:	2.2
TIME PUMP OFF: MEASURED BY:FLOW METER/ GRAD	CYL./ BUCKET/ OTHER
TIME Q GAL PURGED VOLUMES PH TEMP C SC mV	OG DTW
0958 11.3 1 7.32 21.2 1453 53	13.80
1003 22.6 2 7.34 21.2 1450 50	1 13.83
1009 339 3 7.31 21.3 1447 47	1 13,90
1011 7.31 21.3 1440 45	
1013 7,30 213 1444 41	
METER SERIAL #, CALIBRATED SAMPLER/EMPLOYER:	silva90
TETER SERIAL # CALIBRATED SAMPLER/EMPLOYER: OH: OF YES NO PROJECT: SEC: YES NO SAMPLE PRESERVATION/AMT OF RI	3EMG 3CMP EAGENT:
V : YES NO PURGE VOL/EXCESS H2O DEST: 3	32.87 / S300-ĐRÚM
	00
QC SAMPLE ID:W-76Y QC LAB(S): ALPHAANAL, BCLABS-BAK QC SAMPLE S	
SAMPLE ID (VERIFY): W-788 / 3045 TIME COLLECTED:	
AB LAB_LOC_NAME REQUESTED ANALYSIS # TYPE	SAMPLER_REMARKS
3 W-7ES E300.0:NO3 1 250 ml P 3 W-76Y E300.0:NO3 1 250 ml P	
B W-76Y E300.0:NO3 1 250 ml P B W-76Y E624MOD 3 40 mL V	
W-7ES E624MOD 3 40 mL V	
W-76Y SM2510B 1 250 ml P	
W-7ES SM2510B 1 250 ml P	
W-7ES SM4500PH 1 250 ml P W-76Y SM4500PH 1 250 ml P	
W-76Y SM4500PH 1 250 ml P -W-7ES SM9221 1 250 ml P	
N 76Y SM9221 1 250 ml P	RECEIVED
	DEC 12 2019
Addel or of CL	ERD-DATA MGMT

Target	t Sample Date:	09-SEP-201	L9	4	Month: Norm Qtr: 3 Norm Year: 2019					
WELL ID:		W-7PS			AREA INFO:		S300/GSA/C	CGSA		
DATE:	09-Sep-2019	<u> </u>	LOG BOOK (DOCUMENT	CONTROL) #:		AA40003			
PURGE METHOD	SAMPLE METHOD	: GF / 3	VES		CONTAMINANT	PRESENT:	TCE	-3/NO3-17		
SCREENED INT	PERVAL (ft-bmp)	:19.	48 - 22.48	1	NTAKE DEPTH	:		0.00		
CASING DEPTH	K(installed/sou	nded)(ft-b	mp):_19.50	/ 22.48	on 12-APR-9	4 CASING	VOL (Gal/	rime): 8.31 6.74 35		
DEPTH TO WAT	CER(ft-bmp):	12.12 on	24-JUL-19		4,42	VOLUME	FACTOR:C	0.826 20.1 Gal		
WATER IN CAS	SING (ft):10	0.06	8.0	<u>6</u>	ASING DIAME	TER/TCASING H	HT(in):	4.5 / 2.68		
TIME PUMP ON	I:	1050		1	NITIAL FLOW	RATE (Q=GPM)) :	,90 Q		
TIME PUMP OF	'F:	117	5	M	EASURED BY:	FLOW METER)	GRAD CYL./	BUCKET/ OTHER		
TIME Q	GAL PURGED	VOLUMES	Нф	TEMP C	sc	mV	OG	DTW		
1058	6.7	and the second	7.59	24.7	1449	53	THEORETICAL	16,54		
1106	13.4	3	7,59	24.7	1450	38	Chalanna	18,12		
1114	20.1	ા	7.62	14,7	1458	41		19.37		
1126			7,60	24.6	1454	37				
1118			7,57	24.6	1449	33				
METER	SERIAL #	<u>.</u> د	ALIBRATED	S	AMPLER/EMPLO	OYER:	silva	90		
pH :	CERTIFIE (00084	YES/NO	P	ROJECT:		3MR	P		
SC :			YES/NO			RVATION/AMT o CESS H2O DEST				
H2O:			YES/NO		F LOCATION:		\$300			
	:W-75Y EGSAFB	,						7510 1445		
SAMPLE ID (V	ERIFY):	W-7PS/	3085	Т	IME COLLECT	ED:		125		
LAB BB	LAB_LOC_NAME EGSAFB	,	REQUEST	TED ANALY:	SIS #	TYPE 250 ml P		SAMPLER_REMARKS		
ВВ	W-75Y			BANIONS	1	250 ml P				
BB	W-7PS			BANIONS	1	250 ml P				
BB BB	W-75Y EGSAFB			METALS METALS	1 1	500ml P 500ml P				
3B	W-7PS			METALS	1	500ml P				
3B	W-7PS			ALS:FILTE		0	_			
3B 3B	W-75Y EGSAFB			ALS:FILTE ALS:FILTE	_	0	[DFOEN/E		
3B	EGSAFB			WETCHEM	2	500ml P	Į	RECEIVED		
BB	W-75Y			WETCHEM	2	500ml P				
BB AA-	W-7PS E GSAFB			WETCHEM M9221	2 1	500ml P 2 50 ml P	Ī	SEP 1 2 2019		
A A	W-75Y			M9221	1	250 ml P	(Talendarian)			
AA	W-7PS		S	M9221	1	250 ml P		ERD-DATA MGMT		
				^ ^^	٥					
			γ	Alle,	2 0	2 08	CL			

NOTE:

Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 23.7900009 gal.
Revision: 10/28/2015

Targ	et Sample Date:	10-SEP-20	19	1	Month: Norm Qtr: 3 Norm Year: 2019					
WELL ID:		W-7PS			AREA INFO: S300/GSA/CGSA					
DATE:	10-Sep-201)	LOG BOOK (DOCUMENT	CONTROL) #:	3-4				
PURGE METH	OD/SAMPLE METHOL	: GF / 3	VES		CONTAMINANT PRESENT: TCE-3/NO3-17					
SCREENED I	NTERVAL (ft-bmp)	:19.	48 - 22.48		INTAKE DEPTE	I:		0.00		
CASING DEP	TH(installed/sou	nded)(ft-b	omp): 19.50	/ 22.48	on 12-APR-9	CASING	VOL (Ga	1/Time): 8.31 6.7 X 3cc		
					VOLUME FACTOR: 0.826 7 20,					
WATER IN CASING (ft): 10.06 S.CS CASING DIAMETER/TCASING HT(in): 4.5 / 2.68										
TIME PUMP ON:										
TIME PUMP (TIME PUMP OFF:MEASURED BY:FLOW METER/GRAD CYL./ BUCKET/ OTHER									
TIME (GAL PURGED	VOLUMES	рН	TEMP C	sc	mV	OG	DTW		
1105	Fa)	(7.54	24.6	1433	412	İ	16.60		
1111	13,4	1	7,58	14,6	1440	379	1	18,30		
1119	201	3	7.58	14.5	1444	330		19,41		
1121			7.56	24.5	1441	289				
1125			7.56	745	1443	179				
							1			
		3					//			
METER	SERIAL 7	≠ c	ALIBRATED	5	SAMPLER/EMPL	OYER:	sil	va90		
pH :	SERIAL 7	6600	YES/NO	H	PROJECT:		3	MRP		
SC:		w				RVATION/AMT		/ S300-DRUM		
H2O:			YES/NO					, D300-DR0M		
QC SAMPLE I	D:EGSAFB W-75Y		QC LAB(S):	ALPHAA	NAL, BCLABS-	-BAK QC SAM	PLE TIME:	140)		
SAMPLE ID ((VERIFY):	5-7PS/30	95	1	TIME COLLECT	ED:		29		
AB	LAB_LOC_NAME	,	REQUEST	ED ANALY	SIS #	TYPE		SAMPLER REMARKS		
BB	EGSAFB			ANIONS	1	250 ml P				
BB-	<u>W-75Y</u>			ANIONS	1	250 ml P				
BB BB	'W>7P S ₩ -75 Y			ANIONS METALS	1 1	250 ml P				
BB	EGSAFB			METALS	1	5 00 ml P 5 00m l P				
BB	₩-7PS			METALS	1	500ml P				
BB-	₩ -7P S		SIMET	ALS:FILTE	R 0	0	F			
3B-	-₩75¥		-	ALS:FILTE		0		RECEIVED		
3B	TEGSAFB		-	ALS:FILTE		0				
3B 3B	E GSAFB W-75Y			WETCHEM WETCHEM	2	-500ml P		000 1 0 0040		
3B-	W-7PS			WETCHEM WETCHEM	2 2	500ml P 500ml P		SEP 1 2 2019		
AA	EGSAFB		-	M9221	1	250 ml P				
AA	W-75Y			M9221	1	250 ml P	REMARKS	ERD-DATA MGMT		
AA	W-7PS		S	M9221	1	250 ml P	Į.	A 44 # 8 2 2 404 2 2 8		

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NOTE:

Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 23.7900009 gal.
Revision: 10/28/2015

Target	Sample Date:	09-DEC-20	19]	Month: N	orm Qtr: 4	Norm Year:	2019	
WELL ID:		W-7PS			AREA INFO:	THE PROPERTY OF THE PARTY OF TH	S300/GSA/CGSA		
DATE:	09-Dec-2019	•	LOG BOOK (DOCUMENT	CONTROL) #:		AA40040		
PURGE METHOD	/SAMPLE METHOD	:GF / 3	VES		CONTAMINANT	PRESENT:	TCE-	3/NO3-17	
SCREENED INT	ERVAL (ft-bmp)	:19.	48 - 22.48		INTAKE DEPTH	*	0	.00	
CASING DEPTH	(installed/sou	nded)(ft-l	omp): 19.50	/ 22.48	on 12-APR-9	4 CASING	G VOL (Gal/T	ime): 5.00 4,4x3cu	
DEPTH TO WAT	ER(ft-bmp):	16.13 on	23-OCT-19	17	,14	VOLUMI	E FACTOR: 0	.826 13,26a1	
WATER IN CAS	ING (ft): 6	.05	5,3	<u>0 </u>	CASING DIAME	TER/TCASING	HT(in):	4.5 / 2.68	
TIME PUMP ON	•	1119			INITIAL FLOW	RATE (Q=GPI	M):	.90	
TIME PUMP OF	F:	1144	\	1	MEASURED BY:	FLOW METER/	GRAD CYL./	BUCKET/ OTHER	
TIME Q	GAL PURGED	VOLUMES	Нq	TEMP C	sc	m∇	OG	DTW	
1124	4.4	\	7.21	22.4	1451	H-Z		18.22	
1129	4.8	2	7,20	77,6	1456	183	(18.57	
1134	13.2	3	7-75	27.5	1459	100		19,33	
1136		THE PERSON NAMED IN COLUMN TO THE PE	7.24	21.5	1447	192			
1138			7.24	12.5	1435	189			
METER	SERIAL #	¥ (CALIBRATED		SAMPLER/EMPLO	OVER •	silva9		
pH :		M20010	YE\$/NO	I	PROJECT:		3EMG	3CMP	
SC:			YES/NO		SAMPLE PRESEI PURGE VOL/EXC				
H2O:			YES/NO		FF LOCATION:				
QC SAMPLE ID:	***************************************		QC LAB(S):			QC SAM	MPLE TIME:		
SAMPLE ID (VE	ERIFY):	-7PS/	3045		TIME COLLECTI	ED:		1144	
	LAB_LOC_NAME	,			SIS #	TYPE		SAMPLER_REMARKS	
BB AA	W-7PS W-7PS			00.0:NO3		250 ml P			
BB	W-7PS W-7PS			624MOD M2510B	4 1	40 mL V 250 ml P			
BB	W-7PS			M2510B 44500PH		250 ml P			
AA	W=7PS			M9221	1	-350 ml P			

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rarg	et sample Date:	10-DEC-20.	19	1	Month: N	orm Qtr: 4	Norm Year: 2019			
WELL ID:		W-7PS			AREA INFO:		S300/GSA/CGSA			
DATE:	10-Dec-2019	•	LOG BOOK (DOCUMENT	CONTROL) #:		AA40040			
PURGE METHO	OD/SAMPLE METHOD	: GF / 3	VES		CONTAMINANT	PRESENT:	TCE	-3/NO3-17		
SCREENED IN	NTERVAL (ft-bmp)	:19.	48 - 22.48	-	INTAKE DEPTH	:		0.00		
CASING DEP	TH(installed/sou	nded)(ft-b	omp): <u>19.50</u>	/ 22.48	on 12-APR-9	4 CASIN	G VOL (Gal/	rime): 5.00 4.4 &		
DEPTH TO WA	ATER(ft-bmp):	16.13 on	23-OCT-19	1	1,74	VOLUM	E FACTOR: (1.826 B,Za		
WATER IN CA	ASING (ft): 6	.05	5,	24 (CASING DIAME	TER/TCASING	HT(in):	4.5 / 2.68		
TIME PUMP (ON:	1125		-	INITIAL FLOW	RATE (Q=GP)	M):	1,0		
	OFF:									
TIME (Q GAL PURGED	VOLUMES	рН	TEMP C	sc	mV	OG	DTW		
1130	4.4	(7.33	11.1	1446	379		18.25		
1135	8.8	2	7.31	223	1451	317		19.00		
1140	13.2	2	7.30	11.11	1448	280		19.47		
1192			7.30	224	14 44	126				
1144			7-14	n.4	1441	190				
				1						
METER	SERIAL 7	# ₋ C	CALIBRATED		SAMPLER/EMPL	OYER:	silva	90		
		#(010064)	yes no	I	PROJECT:		ЗСМ	P 3EMG		
mV:		······································	YES NO		SAMPLE PRESE PURGE VOL/EX		The state of the s	S300-DRUM		
H2O:			YES/NO		FF LOCATION:					
QC SAMPLE	ID:		QC LAB(S):		- American	QC SAI	MPLE TIME:_			
SAMPLE ID ((VERIFY):	J-7PS	3045		TIME COLLECT	ED:		1149		
AB	LAB_LOC_NAME		REQUEST	red analy	SIS #	TYPE		SAMPLER_REMARKS		
3B	W-7PS			0 - 0 : NO 3		250 ml P		-		
AA BB	W-7PS W-7PS			624HOD M2510B	4 1	4 0 mL V				
BB	W=7PS W= 7PS			M2510B 44500PH	1	2 50 ml P 250 m l P				
AA	W-7PS			M9221	1	250 ml P				

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ERD-DATA MGMT

WELL ID: W-25N-22 AREA INFO: DATE: 04-Sep-2019 LOG BOOK (DOCUMENT CONTROL) #: PURGE METHOD/SAMPLE METHOD: Grundfos / 3VES CONTAMINANT PRESENT: SCREENED INTERVAL (ft-bmp): 20.80 - 30.80 PUMP INTAKE DEPTH: CASING DEPTH(installed/sounded)(ft-bmp): 28.50 / 32.50 on 09-JAN-12 CASING DEPTH TO WATER(ft-bmp): 20.09 on 24-JUL-19 U, AS VOL WATER IN CASING (ft): 10.91 /OA CASING DIAMETER/TCASI	AA40001 TCE-1.2 31.05 SING VOL (Gal/Time): 9.01 8.3×3 LUME FACTOR: 0.826 ZG-4C
PURGE METHOD/SAMPLE METHOD: Grundfos / 3VES CONTAMINANT PRESENT: SCREENED INTERVAL (ft-bmp): 20.80 - 30.80 PUMP INTAKE DEPTH: CASING DEPTH(installed/sounded)(ft-bmp): 28.50 / 32.50 on 09-JAN-12 CAS DEPTH TO WATER(ft-bmp): 20.09 on 24-JUL-19 4 78 VOL	31.05 SING VOL (Gal/Time): 9.01 8.3×3 LUME FACTOR: 0.826
SCREENED INTERVAL (ft-bmp): 20.80 - 30.80 PUMP INTAKE DEPTH: CASING DEPTH(installed/sounded)(ft-bmp): 28.50 / 32.50 on 09-JAN-12 CAS DEPTH TO WATER(ft-bmp): 20.09 on 24-JUL-19 U, 78 VOL	31.05 SING VOL (Gal/Time): 9.01 8.3×3 LUME FACTOR: 0.826
CASING DEPTH(installed/sounded)(ft-bmp): 28.50 / 32.50 on 09-JAN-12 CAS DEPTH TO WATER(ft-bmp): 20.09 on 24-JUL-19 4 VOL	UME FACTOR: 0.826
DEPTH TO WATER(ft-bmp): 20.09 on 24-JUL-19 4,78 VOL	LUME FACTOR: 0.826 ZG-4C
WATER IN CASING (ft): 10.91 /O.Y CASING DIAMETER/TCASI	ING HT(in): 4.5 / 2.50
TIME PUMP ON: INITIAL FLOW RATE (Q=	
TIME PUMP OFF:MEASURED BY:FLOW METE	GRAD CYL./ BUCKET/ OTHER
TIME Q GAL PURGED VOLUMES PH TEMP C SC mV	
0913 8.8 1 7-30 23.8 1688 86	1 23,42
0924 17.6 2 7.76 73.2 1720 19	
0935 264 3 7.15 231 1718 77	- 1 26,21
0937 7.22 23.1 1720 78	
0434 7,20 23.1 1715 81	
METER SERIAL # CALIBRATED SAMPLER/EMPLOYER: PH:	3MRP
H2O: YES/NO TF LOCATION:	
QC SAMPLE ID: QC LAB(S): QC	SAMPLE TIME:
SAMPLE ID (VERIFY): W-25N-22 3245 TIME COLLECTED:	0942
AB LAB_LOC_NAME REQUESTED ANALYSIS # TYPE BB W-25N-22 S3ANIONS 1 250 ml 1 BB W-25N-22 S3METALS 1 500ml P BB W-25N-22 S3METALS:FILTER 0 O BB W-25N-22 S3METCHEM 2 500ml P AA W-25N-22 SM9221 1 250 ml 1	

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ERD-DATA MGMT

Ta	irget	sample Date:	04-SEP-20	19]	Month: 1	Norm Qtr: 3	Norm Year:	2019	
WELL ID:			W-25N-23		i	AREA INFO:	PARTITION OF THE PARTIT	S300/GSA/EGSA		
DATE:		04-Sep-201	9	LOG BOOK (DOCUMENT	CONTROL) #:		AA40001		
PURGE ME	THOD/	SAMPLE METHOL	: Grund:	fos / 3VES		CONTAMINANT	PRESENT:	*T(CE-6.0	
		ERVAL (ft-bmp)								
CASING D	EPTH(installed/sou	ınded)(ft-l	omp):_35.30	/ 37.17	on 25-APR-1	.8 CASIN	G VOL (Gal/T	ime): 16.85 (4,7)	
		GR(ft-bmp):							411.0	
WATER IN	CASI	NG (ft): 2	0.40	17:	77	CASING DIAME	TER/TCASING	HT(in):	4.5 / 2.50	
TIME PUM	P ON:		1019			NITIAL FLOW	RATE (Q=GPI	M):	.85	
		`: <u></u>					A STATE OF THE PARTY OF THE PAR			
TIME	Q		VOLUMES	рН	TEMP C	sc	mV	OG	DTW	
1036		14.7	1	7.34	25.3		72	1	7.1.13	
1053		29,4	2	7.31	75.2	1548	69	(23.42	
jllo		44.1	3	7.79	25.1	1574	77	***************************************	23:88	
11/2				1.29	25.1	1540	すし		23:00	
1114				4.6	- 3, 1	7340	7			
L										
METER pH :		SERIAL #	\$ CIOOPY	ALIBRATED YESYNO		AMPLER/EMPLO ROJECT:	OYER:	silva90)	
SC :				ves no				of REAGENT:_ ST: 50.56 /	MA	
H2O:				YES NO		F LOCATION:		S300	S300-DRUM	
QC SAMPLI	E ID:		_	QC LAB(S):		~	OC SAM	PLE TIME	processor.	
		RIFY):							1	
AB		AB LOC NAME		1	ED ANALYS		TYPE		SAMPLER REMARKS	
BB		W-25N-23			ANIONS	1	250 ml P		SANATIEK_KEMAKKS	
BB		W-25N-23		s3	METALS	1	500ml P			
BB		W-25N-23			ALS:FILTE		0			
BB AA		W-25N-23 W-25N-23			VETCHEM	2	500ml P			
M.T.		W-23H-23		S	M9221	1	250 ml P			

Added , or of CC



Revision: 10/28/2015

PH	rarge	t Sample Date:	09-SEP-20.	19		Month: N	lorm Qtr: 3	Norm Year	: 2019
CONTAMINANT PRESENT: **TCR-19/803-40	WELL ID:		W-26R-01			AREA INFO:		S300/GSA/	EGSA
CASTING DEPTH(installed/sounded) (ft-bmp): 22.72 - 27.72 DUMP INTAKE DEPTH: 29.00	DATE:	09-Sep-201	9	LOG BOOK (DOCUMENT	CONTROL) #:		AA40003	
CASING DEPTH (installed/sounded) (ft-bmp): 29.80 / 30.00 on 16-NOV-88	PURGE METHO	D/SAMPLE METHO	D: GF / 3	VES		CONTAMINANT	PRESENT:	*TCE	-15/NO3-40
DEPTH TO WATER (ft-bmp): 14.70 on 24-JUL-19 0.94 VOLUME FACTOR: 0.826 37.4 WATER IN CASING (ft): 17.77 3.06 CASING DIAMETER/TCASING HT(in): 4.5 / 2.67 TIME FUMP ON:	SCREENED IN	TERVAL (ft-bmp):22.	72 - 27.72		PUMP INTAKE	DEPTH:		29.00
WATER IN CASING (ft): 17.77	CASING DEPT	H(installed/so	unded)(ft-b	omp): 29.80	/ 30.00	on 16-NOV-8	8 CASING	VOL (Gal/	Time): 14.68 10,8X
TIME PUNP ON:	DEPTH TO WAY	TER(ft-bmp):	14.70 on	24-JUL-19	<u> </u>	,94	VOLUME	FACTOR:	0.826 37.4
TIME PUNP OFF: MEASURED EVIELOW METES/ GRAD CYL./ BUCKET/ OTHER	WATER IN CAS	SING (ft):1	.7.77	13.06		CASING DIAME	TER/TCASING	HT(in):	4.5 / 2.67
TIME O GAL PURGED VOLUMES PH TEMP C SC mV OG DTW	TIME PUMP O	N:	0915			INITIAL FLOW	RATE (Q=GPM	1):	.0 Q
Delicar Deli	TIME PUMP O	FF:			1	MEASURED BY:	FLOW METER/	GRAD CYL./	BUCKET/ OTHER
CONTROL CONT	TIME Q	GAL PURGED	VOLUMES	рН	TEMP C			OG	DTW
O	0916	10.8	1	7,64	22.3	1384	30		17,12
	0937	21.6	2	7.60	77.3	134	33	1	17.83
METER SERIAL # CALIBRATED SAMPLER/EMPLOYER: SILVA90	0948	37.4	3	7.61	27,2	1389	40	-	17.99
METER SERIAL # CALIBRATED SAMPLER/EMPLOYER: SILVA90	0450	V		7.60	221	1377	39	1	
PH	0952			7,58	22.1	1364	37		
PH									
PH									
SAMPLE PRESERVATION/AMT of REAGENT NA NEW	METER	SERIAL	# C	ALIBRATED		SAMPLER/EMPL	OYER:	silva	90
SAMPLE PRESERVATION/AMT of REAGENT NA NEW	pH :	*	(010024	YES/NO					
C				YES/NO	1		,		
SAMPLE ID (VERIFY):				YES/NO					TF-834
AB LAB_LOC_NAME REQUESTED ANALYSIS # TYPE SAMPLER_REMARKS BB W-26R-01 S3ANIONS 1 250 ml P BB W-26R-42Y S3ANIONS 1 250 ml P BB W-26R-42Y S3METALS 1 500ml P BB W-26R-01 S3METALS 1 500ml P BB CGSAFB S3METALS 1 500ml P BB CGSAFB S3METALS:FILTER 0 0 BB W-26R-42Y S3METALS:FILTER 0 0 BB W-26R-01 S3METALS:FILTER 0 500ml P BB W-26R-01 S3METALS:FILTER 0 500ml P BC W-26R-01 S3METCHEM 2 500ml P									
B	SAMPLE ID (V	VERIFY):	J-2612-1	01/309	51	TIME COLLECTI	ED:		000
B W-26R-42Y S3ANIONS 1 250 ml P CGSAFB S3ANIONS 1 250 ml P B W-26R-42Y S3METALS 1 500ml P B W-26R-01 S3METALS 1 500ml P CGSAFB S3METALS 1 500ml P CGSAFB S3METALS: FILTER 0 0 CGSAFB S3METALS: FILTER							TYPE		SAMPLER_REMARKS
B CGSAFB S3ANIONS 1 250 ml P B W-26R-42Y S3METALS 1 500ml P B CGSAFB S3METALS: FILTER 0 0 B W-26R-42Y S3METALS: FILTER 0 0 B W-26R-01 S3METALS: FILTER 0 0 B W-26R-01 S3METALS: FILTER 0 0 B W-26R-01 S3METCHEM 2 500ml P B CGSAFB S3WETCHEM 2 500ml P CGSAFB SM9221 1 250 ml P									
B W-26R-42Y S3METALS 1 500ml P B W-26R-01 S3METALS 1 500ml P B CGSAFB S3METALS: FILTER 0 0 B W-26R-42Y S3METALS: FILTER 0 0 B W-26R-01 S3METALS: FILTER 0 0 CGSAFB S3WETCHEM 2 500ml P B CGSAFB S3WETCHEM 2 500ml P CGSAFB SM9221 1 250 ml P CGSAFB SM9221 1 250 ml P CGGSAFB SM9221 1 250 ml P	BB								
S3METALS S00ml P S3METALS S00ml P S3METALS S00ml P S	BB	W-26R-42Y							
B CGSAFB S3METALS:FILTER 0 O B W-26R-42Y S3METALS:FILTER 0 O B W-26R-01 S3METALS:FILTER 0 O B W-26R-01 S3METALS:FILTER 0 O B W-26R-01 S3METALS:FILTER 0 O B W-26R-42Y S3METCHEM 2 500ml P B CGSAFB S3WETCHEM 2 500ml P CGSAFB S3WETCHEM 2 500ml P A W-26R-01 SM9221 1 250 ml P A W-26R-01 SM9221 1 250 ml P CGSAFB SM9221 1 250 ml P CGSAFB SM9221 1 250 ml P ERD-DATA MGMT	BB	W-26R-01		S3	METALS	1			
B W-26R-42Y S3METALS:FILTER 0 0 0 B W-26R-01 S3METALS:FILTER 0 0 0 B W-26R-01 S3WETCHEM 2 500ml P B W-26R-42Y S3WETCHEM 2 500ml P B CGSAFB S3WETCHEM 2 500ml P A W-26R-01 SM9221 1 250 ml P A W-26R-01 SM9221 1 250 ml P CGSAFB SM9221 1 250 ml P	В			S3	METALS	1	500ml P		
B W-26R-01 S3METALS:FILTER 0 O B W-26R-01 S3WETCHEM 2 500ml P B W-26R-42Y S3WETCHEM 2 500ml P B CGSAFB S3WETCHEM 2 500ml P A W-26R-01 SM9221 1 250 ml P A W-26R-02Y SM9221 1 250 ml P CGSAFB SM9221 1 250 ml P CGSAFB SM9221 1 250 ml P CGSAFB SM9221 1 250 ml P ERD-DATA MGMT						-	0		
B W-26R-01 S3WETCHEM 2 500ml P W-26R-42Y S3WETCHEM 2 500ml P B CGSAFB S3WETCHEM 2 500ml P SEP 1 2 2019 A W-26R-01 SM9221 1 250 ml P SEP 1 2 2019 A W-26R-02 SM9221 1 250 ml P SEP 1 2 2019 A W-26R-02 SM9221 1 250 ml P SEP 1 2 2019 ERD-DATA MGMT									
B W-26R-42Y S3WETCHEM 2 500ml P B CGSAFB S3WETCHEM 2 500ml P A W-26R-01 SM9221 1 250 ml P A W-26R-42Y SM9221 1 250 ml P A GGSAFB SM9221 1 250 ml P ERD-DATA MGMT									DEOFILIEF
B CGSAFB S3WETCHEM 2 500ml P A W-26R-01 SM9221 1 250 ml P A W-26R-42Y SM9221 1 250 ml P A GGSAFB SM9221 1 250 ml P ERD-DATA MGMT									RECEIVEL
SEP 1 2 2019 SM9221 1 250 ml P SM9221 1 250 ml P SGSAFB SM9221 1 250 ml P ERD-DATA MGMT									
A GGSAFB SM9221 1 250 m1 P ERD-DATA MGMT		-							OFD 1 9 1040
SM9221 1 250-ml-P ERD-DATA MGMT	-			_			Arren .		2FL T ~ SOIA
10 10 0	.A	-							
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		Δ.		Adde		07 0	of CC		

Revision: 10/28/2015

rarge	et Sample Date:	10-SEP-20	19		Month:	Norm Qtr: 3	Norm Year:	2019		
WELL ID:		W-26R-01	***************************************		AREA INFO:	***************************************	S300/GSA/EGSA			
DATE:	10-Sep-201	9	LOG BOOK	(DOCUMENT	CONTROL) #:		AA40003			
PURGE METHO	D/SAMPLE METHO	: GF / 3	VES		CONTAMINANT PRESENT: *TCE-15/NO3-40					
SCREENED IN	TERVAL (ft-bmp)	:22.	72 - 27.72		PUMP INTAKE	DEPTH:		29.00		
CASING DEPT	H(installed/sou	ınded)(ft-b	omp): 29.80	0 / 30.00	on 16-NOV-	CASIN	G VOL (Gal/Ti	me): 14.68	<u>10.8</u> x	
DEPTH TO WA	TER(ft-bmp):	14.70 on	24-JUL-19		6.46	VOLUM	E FACTOR: 0.	826	32.4	
WATER IN CA	SING (ft): 1	7.77	13.6	٩	CASING DIAME	ETER/TCASING	HT(in):	1.5 / 2.67		
TIME PUMP O	N:	1003			INITIAL FLOW	RATE (Q=GP	M):	1.00		
	FF:									
TIME Q	GAL PURGED	VOLUMES	Нф	TEMP C	sc	mV	OG	DTW		
ia4	10.56	1	7.68	22,3	1394	440		17.19		
1015	21.6	2	7.64	22.3	1390	375	(18.01		
1036	32.4	3	7.62	22.2	1385	302	Č.	18.15		
1036			7.60	22.2	1380	289				
1040			7.63	22.2	1387	272				
						<u> </u>				
METER	SERIAL :	# 6	ALIBRATED	<u></u>	CAMPLED /EMPL	OVED -				
рН :	DIKTAL	610084	YES /NO		SAMPLER/EMPLOYER: silva90 PROJECT: 3MRP					
			YES/NO				of REAGENT:_	/M2		
			YES/NO		PURGE VOL/EX TF LOCATION:		ST: 44.04 / 834	F-834		
	D:CGSAFB W-26R-		 OC TAB(S):					13.30		
	VERIFY):		ř.							
	LAB LOC NAME		1		rsis #					
- 3	W-26R-01			ANIONS	1	250 ml P		SAMPLER_REMAR	KS	
} ∽	W = 26R - 42y		S [*]	SANIONS	1	250 ml P				
-	CGSAFB.			S anto ns	1	250 ml P				
	W-26R-42Y W-26R-01			METALS	1	500ml P				
5	CGSAFB			3METALS	1 1	5 00ml P 5 00 ml P				
	CGSAFB			ALS:FILT		0				
Ĺ.	W-26R-42Y		_	ALS:FILT	OTTO COMPANY	0				
3	W-26R-01			ALS:FILT		-0	I	RECEIV	FN	
3 <u>.</u> 3	W-26R-01 W- 26R- 42Y		4	WETCHEM WETCHEM	2 2	500ml P				
3.	CGSAFB.			WETCHEM	2	50 0ml P 5 00ml P	I	CED 100	040	
A	W-26R-01			SM9221	1	250 ml P		SEP 122	119	
4	W-26R-42Y			SM9221	1	250 ml P	<i>l</i>	3 Page 11		
A	CGSAFB		5	SM9221	1	250 ml P	LEI	RD-DATA M	GMT	

Executed all CC from well

Revision: 10/28/2015

Targe	t Sample Date:	09-DEC-20	19	M	Month: Norm Qtr: 4 Norm Year: 2019				
WELL ID:		W-26R-01		7	AREA INFO:		S300/GSA/	EGSA	
DATE:	09-Dec-2019)	LOG BOOK (DOCUMENT	CONTROL) #:		AA40040		
PURGE METHOI	D/SAMPLE METHOD	: GF / 3	VES		CONTAMINANT	PRESENT:	*TCE	E-15/NO3-40	
SCREENED INT	TERVAL (ft-bmp)	:22.	72 - 27.72	E	PUMP INTAKE I	DEPTH:		29.00	
CASING DEPTH	H(installed/sou	nded)(ft-b	omp):_29.80	/ 30.00	on 16-NOV-8	8 CASING	VOL (Gal/	Time): 11.53 8,9 × 50	
DEPTH TO WAT	TER(ft-bmp):	18.52 on	23-OCT-19	19,	21	VOLUME	FACTOR:	0.826 26.7cal	
WATER IN CAS	SING (ft):13	3.95	10.	79 0	CASING DIAMET	TER/TCASING I	HT(in):	4.5 / 2.67	
TIME PUMP ON	7:	0911		I	NITIAL FLOW	RATE (Q=GPM)):	1.00	
TIME PUMP OF	FF:	0947	-	M	EASURED BY:	FLOW METER	GRAD CYL./	BUCKET/ OTHER	
TIME Q	GAL PURGED	VOLUMES	рн	TEMP C	sc	mV	OG	DTW	
0910	8,9	\	Aug	20.9	1453	202	Ì	20,01	
0929	17.8	7	7.51	20,9	1450	187		10,07	
0938	26,7	3	7,44	२०५	1444	180		20.12	
0940			7.39	20.8	1441	184			
0942			7,41	20, 9	1439	188			
				-					
METER pH : SC : mV : H20:	SERIAL #	(008)	ALIBRATED YES/NO YES/NO YES/NO YES/NO	P S P		RVATION/AMT C		1G / MA	
QC SAMPLE ID);	***************************************	QC LAB(S):		_		LE TIME:		
	/ERIFY):		1						
AB B B B	LAB_LOC_NAME W-26R-01 W-26R-01 W-26R-01 W-26R-01		E30 S SM	TED ANALY: 00.0:NO3 M2510B 14500PH	1	TYPE 250 ml P 250 ml P 250 ml P		SAMPLER_REMARKS	

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Ta	rget Sample Date:	10-DEC-20	19	Month: Norm Qtr: 4 Norm Year: 2019				
WELL ID:_		W-26R-01		AREA INFO:				GSA
DATE:	10-Dec-2019	9	LOG BOOK (DOCUMENT	CONTROL) #:		AA40040	
PURGE MET	THOD/SAMPLE METHOD	: GF / 3	BVES		CONTAMINANT	PRESENT:	*TCE-	-15/NO3-40
SCREENED	INTERVAL (ft-bmp)	: 22.	72 - 27.72		PUMP INTAKE	DEPTH:		29.00
CASING DE	EPTH(installed/sou	ınded)(ft-l	omp): 29.80	/ 30.00	on 16-NOV-8	8 CASING	: VOL (Gal/I	ime): 11.53 8.9 X
DEPTH TO	WATER(ft-bmp):	18.52 on	23-OCT-19		19,23	VOLUME	FACTOR: 0	.826 76.70
WATER IN	CASING (ft): 1	3.95	10.7	1-	CASING DIAME	TER/TCASING	HT(in):	4.5 / 2.67
TIME PUME	P ON:	0975			INITIAL FLOW	RATE (Q=GPM	1):	1,00
	P OFF:	1000						BUCKET/ OTHER
TIME	Q GAL PURGED	VOLUMES	рН	TEMP C	sc	mV	OG	DTW
0434	8,9	**************************************	7,44	20,7	1450	479		70,13
0943	17-8	7	7.48	w.7	1444	417	1	70.27
OKI	26,7	3	7.48	20,7	1451	378	1	20,26
0954			7.46	70.8	1450	299		
0956			7,45	20,7		254		
								1
							//	
METER	SERTAL:	# (CALIBRATED		SAMPLER/EMPL	OYER:	silva)
pH :		#100sy	YES/NO	;	PROJECT: SAMPLE PRESE		ЗЕМ	G /
			YES/NO		PURGE VOL/EX	CESS H2O DES	T:\34.58 /	
			Yes/no		TF LOCATION:			/
OC SAMPLE	E ID:		QC LAB(S):			QC SAM	PLE TIME:	, aggregation of
SAMPLE II	(VERIFY):	-26/2-01	3085		TIME COLLECT	ED:		1000
ΔB	LAB_LOC_NAME		REQUES	red analy	SIS #	TYPE		SAMPLER_REMARKS
B	W-26R-01			0.0:NO3		250 ml P		_
B- B-	W-26 R-0 1 W -26R- 01			M2510B 44500PH	1 1	250 ml P 250 ml P		
A	W-26R-01			5M9221	1	250 ml P		

Euncoated all CL fram well

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DEC 12 2019

ERD-DATA MGMT

Tai	rget Sample Date:	09-SEP-201	.9	I.	fonth: N	orm Qtr: 3	Norm Year:	2019
WELL ID:_		W-26R-05			AREA INFO:		S300/GSA/EG	SSA
DATE:	09-Sep-201	.9	LOG BOOK (DOCUMENT	CONTROL) #:	·	AA40003	
PURGE MET	HOD/SAMPLE METHO	D: PB / 9	OBA		CONTAMINANT	PRESENT:	TCE-3	.3/NO3-53
SCREENED	INTERVAL (ft-bmp):22.0	05 - 27.05	1	NTAKE DEPTH	:	0.	.00
CASING DE	PTH(installed/so	unded)(ft-b	mp): 25.50	26.68	on 10-FEB-9	1 CASING	VOL (Gal/T	ime): 7.20 5,0 Gl
DEPTH TO	WATER(ft-bmp):	18.28 on	24-JUL-19	20	2,55	VOLUME	FACTOR: 0.	826 415 G
	CASING (ft):							4.5 / 1.50
'IME PUMP	ON:	1019						-
	OFF:							BUCKET/ OTHER
. 111111 1 01111				P.	EMBUKED DI:	LTOM WETERY	GRAD CYLLY	BUCKET/ OTHER
TIME	Q GAL PURGED	COUNT	pН	TEMP C	sc	mV	OG	DTW
1019	- W 415	790% m	7.75	713	1313	86	·	23.12
		-					$\overline{}$	
			***************************************				<u> </u>	
ETER	SERIAL		ALIBRATED		AMPLER/EMPLO	·	silva9	
C:		acc 89	yes\no		ROJECT:	RVATION/AMT	3MRP	
.v :			YES/NO			CESS H2O DES		AUU-DRIM
20:		***************************************	YES/NO			-Cad 0211 CCa.		500-DRUM
C SAMPLE	ID:	(_	QC SAM		Passage-free_
					IME COLLECTE	~		1033
В	LAB LOC NAME		1	red analy:				
3	W-26R-05		-	red analy: Banions	515 # 1	TYPE 250 ml P		SAMPLER_REMARKS
3	W-26R-05			3METALS	1	500ml P		
	W-26R-05			ALS:FILTE		0		
3	W-26R-05			WETCHEM	2	500ml P		
-	W-26R-05			SM9221	1 .	250 ml P		

Added ord to well

SEP 12 2019

ERD-DATA MGMT

Target Sample Date: 12-SEP-2019						Month: Norm Qtr: 3 Norm Year: 2019				
WELL ID:			W-26R-05			AREA INFO:		S300/GSA/EG	SA	
DATE:		12-Sep-2019		LOG BOOK (DOCUMENT	CONTROL) #:		AA40003		
PURGE ME	THOD	SAMPLE METHOD	: PB / 9	OBA		CONTAMINANT	PRESENT:	TCE-3.	3/NO3-53	
CREENED	INT	ERVAL (ft-bmp)	:22.0	05 - 27.05		INTAKE DEPTH	I:	0.	00	
CASING D	EPTH ((installed/sou	nded)(ft-b	mp): 25.50	/ 26.68	on 10-FEB-9	O1 CASING	VOL (Gal/Ti	me): 7.20 ZUZX	
рертн то	WATI	ER(ft-bmp):	18.28 on	24-JUL-19	24,	16	VOLUME	FACTOR: 0.	326 2,26,	
		ING (ft): 8							.5 / 1.50	
'IME PUM	P ON:	•	-							
		F:	Non-							
TIME	Q	GAL PURGED	VOLUMES	рН	TEMP C	sc	mV	OG	DTW	
1125	-	202	90%	7.84	23.1	1432	143		25,87	
					THE PERSON NAMED IN COLUMN NAM			1		

									_	
								4		
ETER		SERIAL A	# C	ALIBRATED		SAMPLER/EMPL	OYER:	silva90		
		610		YES/NO		PROJECT:	RVATION/AMT	OF REAGENT:	1 nA	
				YES/NO			CESS H20 DES	\ _	00-DRUM	
20:	·			— AES/NO	7	F LOCATION:		s300		
C SAMPL	E ID:	•	***************************************	QC LAB(S):	**.	-	QC SAM	PLE TIME:		
AMPLE I	D (VI	ERIFY):)-16p-c	>5/90	BA 1	IME COLLECT	'ED:		133	
3	I	LAB_LOC_NAME		REQUES:	red analy	SIS #	TYPE		SAMPLER_REMARKS	
7		W-26R-05			Banions					
-		W 26R 0 5			METALS		500ml P			
3		W=26R=05 W-26R-05			als:fib ti wetche m	ER TO	0 500ml P			
}										

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ERD-DATA MGMT

NOTE:

Purge rate/time: N/A since est_sus_flow = 0

Purge Volume: 10 gal. Revision: 10/28/2015 2

Targe	t Sample Date:	09-DEC-201	.9	М	Month: Norm Qtr: 4 Norm Year: 2019				
WELL ID:		W-26R-05		A	AREA INFO: S300/GSA/EGSA			SA	
DATE:	09-Dec-2019)	LOG BOOK (DOCUMENT	CONTROL) #:				
PURGE METHO	D/SAMPLE METHOD	: PB / 9	0BA	(CONTAMINANT	PRESENT:	TCE-3.	3/NO3-53	
SCREENED IN	TERVAL (ft-bmp)	:22.0	05 - 27.05	I	NTAKE DEPTH	I :	0.	00	
CASING DEPT	H(installed/sou	nded)(ft-b	mp): 25.50	/ 26.68	on 10-FEB-9	OASING	G VOL (Gal/Ti	me): 4.35 46×90	
DEPTH TO WAY	TER(ft-bmp):	21.74 on	23-OCT-19	21.0	9	VOLUME	FACTOR: 0.	826 4,14 Gel	
	SING (ft):5								
TIME PUMP OF	N:			I	NITIAL FLOW	N RATE (Q=GPM	1):	And Conference of the Conferen	
TIME PUMP O	FF:		Contractive Contra	м	EASURED BY:	FLOW METER	GRAD CYL./)E	UCKET/ OTHER	
TIME Q	GAL PURGED		рН	TEMP C	sc	mV	OG	DTW	
1019	4.1	9082	7.72	18.5	1776	170	No.	23.85	
					·				
LL		<u> </u>		L)	
METER ph:	SERIAL #	61008	ALIBRATED YES/NO		AMPLER/EMPI ROJECT:	OYER:	silva90)	
			— kes√ио				df REAGENT:		
			YE8/NO					300-DRUM	
QC SAMPLE II	D:W-26R-42Y EGS	AFB	QC LAB(S):	BCLABS-	ВАК, АІРНА	ANAL QC SAM	IPLE TIME:	H 1353	
SAMPLE ID (verify):	1-7612-0	5/90R	. Дт	IME COLLECT	'ED:	107	3	
AB	LAB_LOC_NAME		REQUES'	red analys	SIS #	TYPE	,	SAMPLER_REMARKS	
B B	W-26R-42Y			0.0:NO3	1	250 ml P			
В	EGSAFB W-26R-05			00.0:NO3	1 1	250 ml P 250 ml P			
В	W-26R-05		S	M2510B	1	250 ml P			
B 	EGSAFB			M2510B	1	250 ml P			
B B	W-26R-42Y EGSAFB			M2510B 44500PH	1 1	250 ml P 250 ml P			
В	W-26R-42Y			14500PH	1	250 ml P			
В	W-26R-05			14500PH	1	250 ml P			
A	W-26R-42Y		5	3M 922 1	1	250 ml P			
A	ÈGSAFB			M9221	1	250 ml P			
A	W-26R-05		Š	M9221	1	250 ml P			
				4				RECEIVED	
			Adel	led	02	of cl	STATE OF THE PROPERTY OF THE P	DEC 12 2019	
							ER	D-DATA MGWT	

NOTE:

Purge rate/time: N/A since est_sus_flow = 0
Purge Volume: 10 gal.
Revision: 10/28/2015

Page: 1 of 1

Т	arget	Sample Date:	04-SEP-201	.9		Month: Norm Qtr: 3 Norm Year: 2019					
WELL ID:			W-26R-11			AREA INFO: S300/GSA/EGSA					
DATE:		04-Sep-2019)	LOG BOOK (DOCUMENT	CONTROL) #	•	AA40001			
		SAMPLE METHOD									
SCREENED	INT	ERVAL (ft-bmp)	:18.0	08 - 28.08		PUMP INTAKE	DEPTH:		31.08		
CASING D	EPTH	(installed/sou	nded)(ft-bi	mp): <u>27.00</u>	/ 29.28	3 on 01-MAR-	·18 CASING	VOL (Gal/T	ime): 14.16		
DEPTH TO	WATE	ER(ft-bmp):	11.84 on	24-JUL-19			VOLUME	FACTOR: 0	.826		
WATER IN	CASI	ING (ft): 1	7.14			CASING DIAM	ETER/TCASING	HT(in):	4.5 / 1.98		
TIME PUM	IP ON:					INITIAL FLO	W RATE (Q=GPM):			
TIME PUM	P OF	7:				MEASURED BY	:FLOW METER/	GRAD CYL./ 1	BUCKET/ OTHER		
TIME	Q	GAL PURGED	VOLUMES	рН	TEMP C	sc	m∇	OG	DTW		
								$\overline{}$			
METER	1 1	SERIAL #		ALIBRATED		CAMPLED /FWD	LOUED	1			
pH :				YES/NO		PROJECT:	LOYER:	silva9			
SC :				YES/NO			ERVATION/AMT o				
H2O:				YES/NO			XCESS H2O DEST		S300-DRUM		
QC SAMPL	E ID:	***************************************	(QC LAB(S):_			QC SAMI	LE TIME:	/		
SAMPLE I	D (VE	RIFY):				TIME COLLECT	red:				
LAB	L	AB_LOC_NAME		REQUEST	ED ANALY	YSIS #	TYPE		SAMPLER_REMARKS		
BB		W-26R-11			ANIONS	1	250 ml P		_		
BB BB		W-26R-11 W-26R-11			METALS	1 ER 0	500ml P				
BB		W-26R-11 W-26R-11			ALS:FILT VETCHEM	ER 0 2	O 500ml P				
AA		W-26R-11			M9221	1	250 ml P				

Weil still needs repair

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SEP 0 5 2019
ERD-DATA MGMT

Revision: 10/28/2015 Page: 1 of 1

Ta	Target Sample Date: 09-DEC-2019						Month: Norm Qtr: 4 Norm Year: 2019				
WELL ID:			W-26R-11		A	AREA INFO: S300/GSA/EGSA					
DATE:		09-Dec-2019)	LOG BOOK (DOCUMENT	CONTROL) #	·	AA40040			
PURGE ME	THOD	SAMPLE METHOD	: Grund	lfos / 3VES	(CONTAMINAN	r present:	TCE-1	.6/NO3-14		
SCREENED	INTI	GRVAL (ft-bmp)	:18	.08 - 28.08	P	UMP INTAKE	DEPTH:		31.08		
CASING D	EPTH ((installed/sou	nded)(ft-	-bmp): 27.00	/ 29.28	on 01-MAR-	-18 CASING	G VOL (Gal/T	ime): 10.96		
DEPTH TO	WATI	ER(ft-bmp):	15.72 on	23-OCT-19	***************************************		VOLUMI	E FACTOR: 0	.826		
WATER IN	CAS:	ING (ft): 1:	3.26	****	C	ASING DIAM	ETER/TCASING	HT(in):	4.5 / 1.98		
TIME PUM	IP ON:				I	NITIAL FLO	W RATE (Q=GPI	1):			
TIME PUM	IP OFI	?:			м	EASURED BY	:FLOW METER/	GRAD CYL./	BUCKET/ OTHER		
TIME		GAL PURGED									
							-				

									1		
WEEDEN.		ATD T. T.	n	CAL TODAMED		THE TO A THE		//	()		
METER ph :		SERIAL #		CALIBRATED YES/NO		AMPLER/EMP ROJECT:	LOYER:	silva9	<u> </u>		
sc :				YES/NO			ERVATION/AMT				
mV :				YES/NO		PURGE VOL/EXCESS H2O DEST 32.87 / S300-DRUM					
н20:				YES/NO	Т	F LOCATION	[*	\$300			
QC SAMPL	E ID:			QC LAB(S):			QC SAM	MPLE TIME:			
SAMPLE I	D (VI	ERIFY):			т	IME COLLEC	TED:				
AB	LAB_LOC_NAME REQUESTED ANA						TYPE		SAMPLER_REMARKS		
В	W-26R-11 E300.0:NO					1	250 ml P				
В		W-26R-11			624MOD	3	40 mL V				
В		W-26R-11			M2510B	1	250 ml P				
B .A		W-26R-11 W-26R-11			44500PH SM9221	1 1	250 ml P 250 ml P				
n		M-20K-11		5	311744L	1	230 MI P				

Pump woperable
No Samples

RECEIVED

DEC 12 2019

ERD-DATA MGWT

rarger 5	ample Date:	18-SEP-20	19		Month: Norm Qtr: 3 Norm Year: 2019				
WELL ID:		W-35A-04			AREA INFO:		S300/GSA/C	GSA	
DATE:	18-Sep-2019		LOG BOOK (DOCUMENT	CONTROL) #:		AA40008		
PURGE METHOD/S	AMPLE METHOD	: Grunfo	s / 3VES		CONTAMINANT	PRESENT:		ND	
SCREENED INTER	VAL (ft-bmp)	: 19.	30 - 29.30		PUMP INTAKE	DEPTH:		26.28	
CASING DEPTH(in	nstalled/sou	nded)(ft-b	omp):_29.00	28.57	on 14-DEC-0	9 CASING	G VOL (Gal/T	ime): 17.10 / \ X	
DEPTH TO WATER	(ft-bmp):	8.30 on 0	7-AUG-19		.44	VOLUMI	E FACTOR: 0	.826 456	
WATER IN CASING	G (ft): 20	.70	18,13)(CASING DIAME:	TER/TCASING	HT(in):	4.5 / 0.00	
TIME PUMP ON:_					INITIAL FLOW	RATE (Q=GPI	: (P	1,7	
TIME PUMP OFF:			t 0	1	MEASURED BY:	FLOW METER/	GRAD CYL./	BUCKET/ OTHER	
TIME Q	GAL PURGED	VOLUMES	рн	TEMP C	SC	mV	OG	DTW	
1037	15	\	7.36	22.8	1463	111	4	10.52	
1045	30	2	7.32	23.0	1460	79	\	11.02	
1058	45	3	734	73.0	1460	87		11.09	
1100			7.31	23.0	1455	77	***		
1107			1,30	73,0	1451	75			
METER				I	SAMPLER/EMPLO		silva9 3MRP		
SC : mV : H2O:			YES/NO YES/NO YES/NO	F	SAMPLE PRESER PURGE VOL/EXC F LOCATION:	CESS H2O DES	-	// \	
QC SAMPLE ID:	**************************************	w	QC LAB(S):			QC SAM	IPLE TIME:	***************************************	
			1					07	
.B LAE 3 % 3 %	B_LOC_NAME N-35A-04 N-35A-04 N-35A-04		REQUEST S3 S3	TED ANALY BANIONS	SIS # 1 1	TYPE 250 ml P 500ml P O		SAMPLER_REMARKS	
	V-35A-04 V-35A- 04			WETCHEM 5M9221	2	500ml P 2 50 ml P			

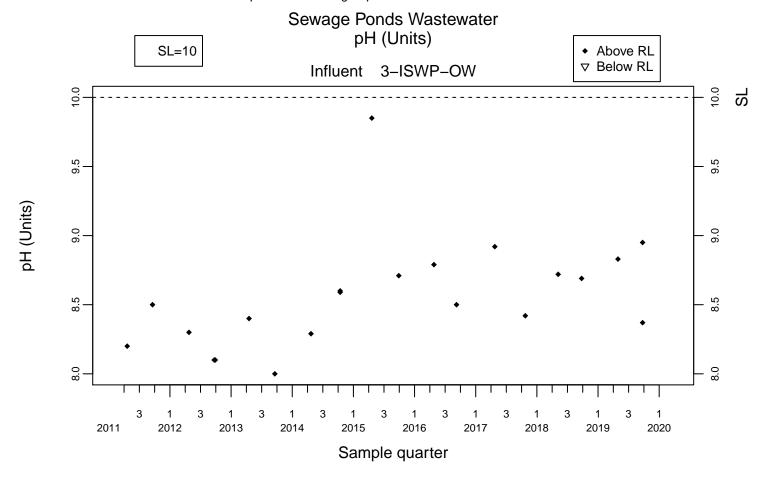
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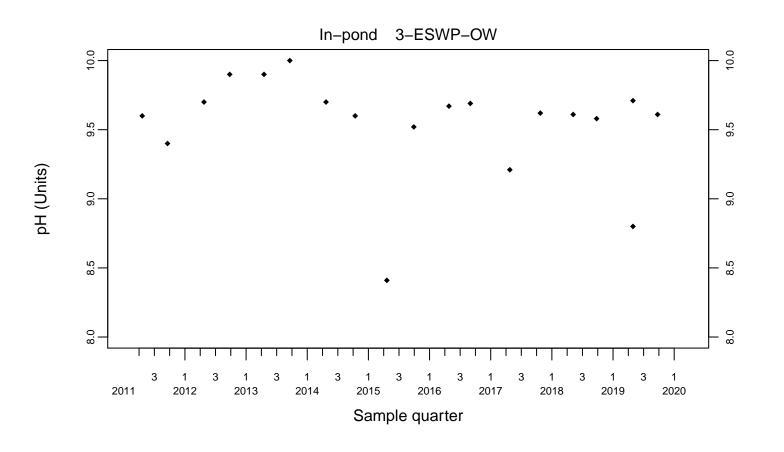
RECEIVED	
SEP 19 2019	MODEL SHARE STATES
ERD-DATA MGMT	

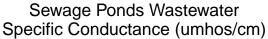
Та	arget	Sample Date:	19-SEP-20	19	1	Month: 1	Norm Qtr: 3	Norm Yea	r: 2019	
WELL ID:		·	W-35A-04			AREA INFO:		S300/GSA/CGSA		
DATE:		19-Sep-201)	LOG BOOK (DOCUMENT	CONTROL) #:		AA40008	-9	
PURGE ME	THOD,	/SAMPLE METHOD	:Grunfo	s / 3VES		CONTAMINANT	PRESENT:		ND	
SCREENED	INT	ERVAL (ft-bmp)	:19.	30 - 29.30	1	PUMP INTAKE	DEPTH:		26.28	
CASING D	EPTH	(installed/sou	nded)(ft-b	omp): 29.00	/ 28.57	on 14-DEC-C	O9 CASING	VOL (Gal	/Time): 17.10 /5 × 3c	
DEPTH TO	WATI	ER(ft-bmp):	8.30 on 0	7-AUG-19		0,44	VOLUME	FACTOR:_	0.826	
WATER IN	CASI	ING (ft): 2	0.70	14,	13	CASING DIAME	TER/TCASING	HT(in):	4.5 / 0.00	
TIME PUM	P ON:	•	1037		1	NITIAL FLOW	RATE (Q=GPN	1):	1,26al	
									/ BUCKET/ OTHER	
TIME	Q	GAL PURGED	VOLUMES	рН	TEMP C	sc	mV	OG	DTW	
1046		15	(7.33	22.7	1460	321	i	10.55	
1059		30	2	7.31	22.8	1455	303		11.17	
1112		45	3	730	22.8	1451	277	*	//,33	
1114				7.32	22,8	1456	212			
1116				7.30	22.4	1457	189			
								1		
METER pH:		serial #	; 610081	ALIBRATED YESVNO	S	AMPLER/EMPL	OYER:	silv.		
SC :				YES/NO	·		RVATION/AMT CESS H2O DES	of REAGENT	:: /UA	
H2O:				YES NO	_		CESS HZO DES	collect		
		Westernation		1				_		
SAMPLE II	D (VE	RIFY):	J-35A-	04/309	<u></u>	IME COLLECT	ED:		//20	
AB BB BB BB	L	AB_LOC_NAME W=35A-04 W=35A-04 W_35A-04 W-35A-04 W-35A-04		*53 S3 S3MET: S31	ED ANALYS ANIONS METALS ALS:FILTE WETCHEM M9221	SIS # 1 1 0 2 1	TYPE 250 mT P 500mT P 0 500m1 P 250 m1 P		SAMPLER_REMARKS	

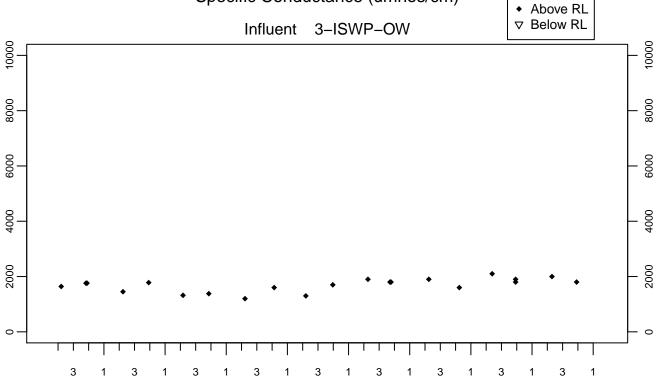
Evacuated all CL from well





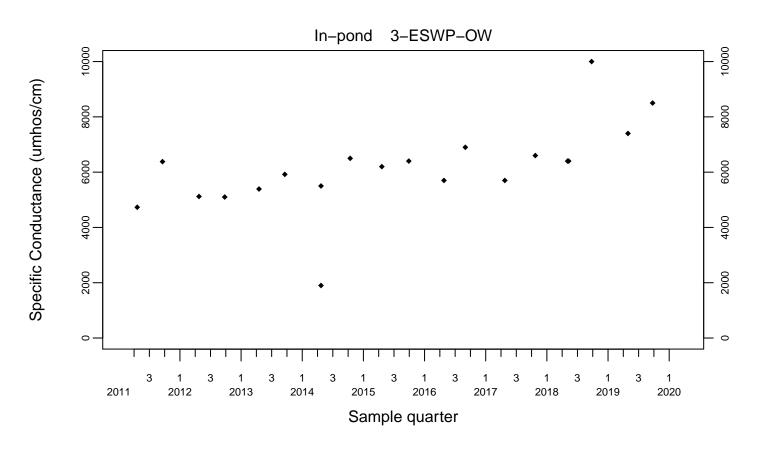




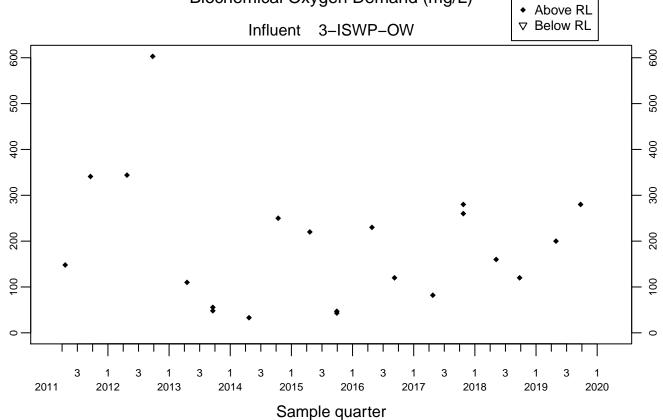


Sample quarter

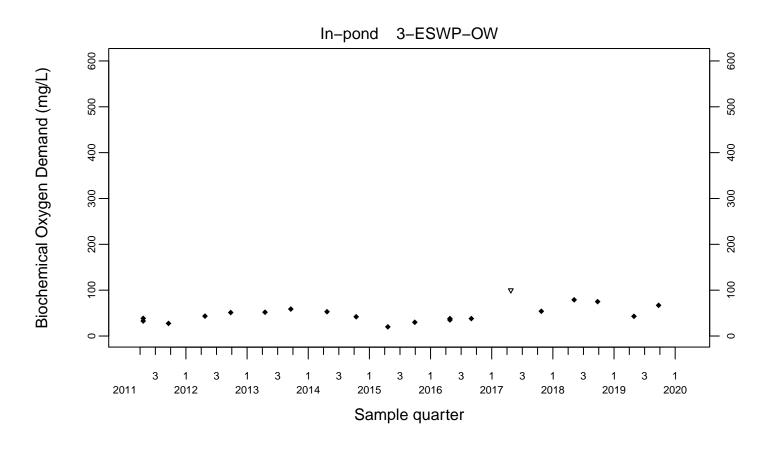
Specific Conductance (umhos/cm)

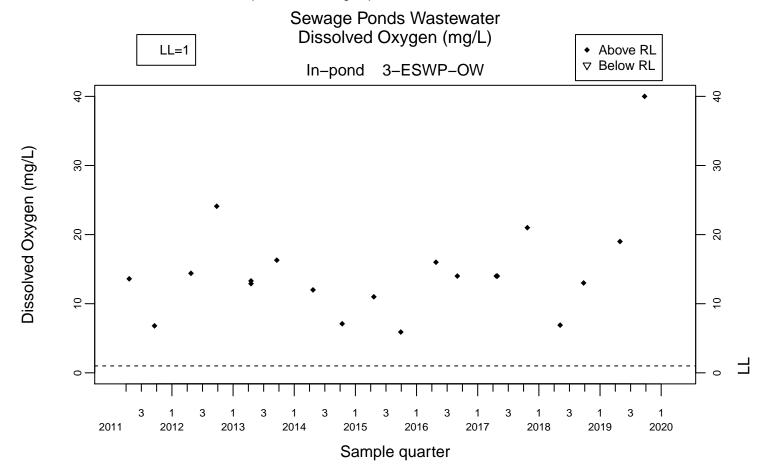


Sewage Ponds Wastewater Biochemical Oxygen Demand (mg/L)

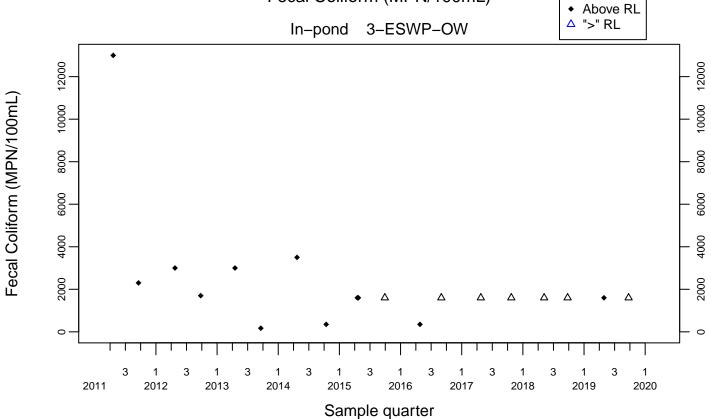


Biochemical Oxygen Demand (mg/L)

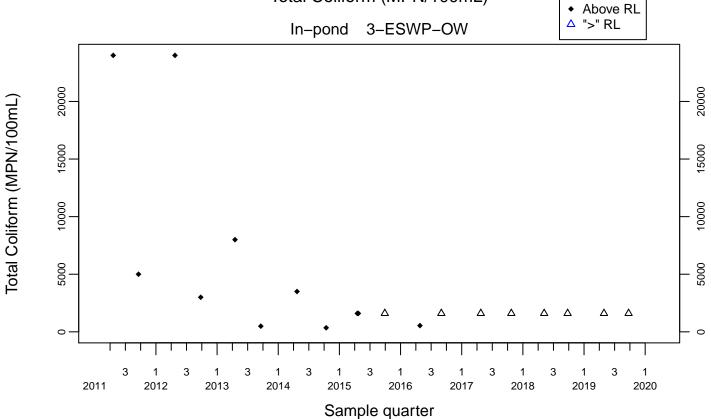


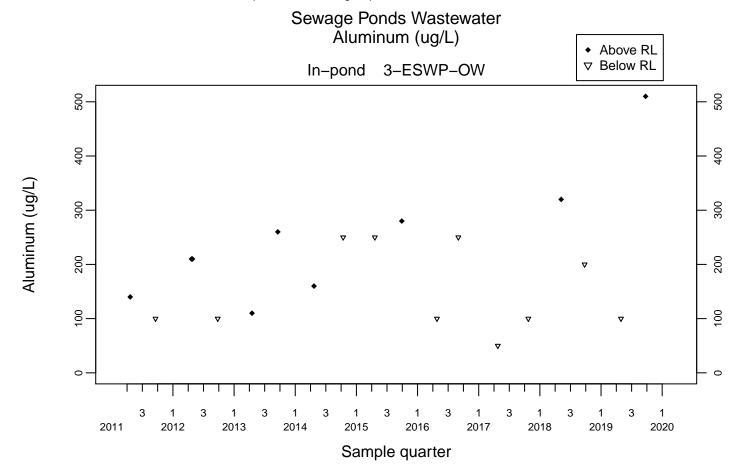


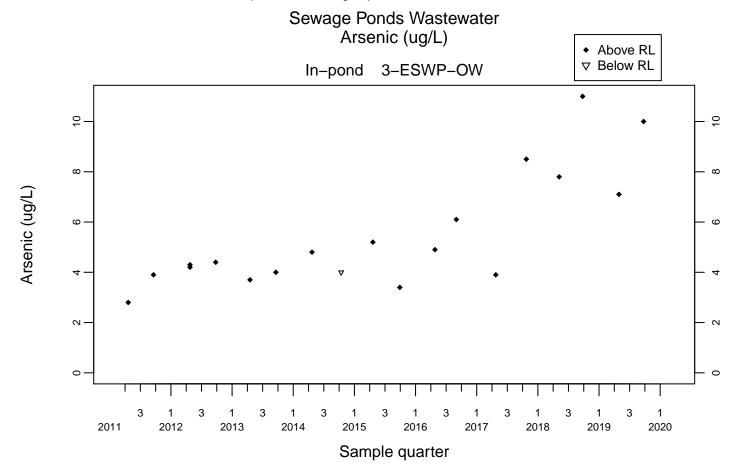
Sewage Ponds Wastewater Fecal Coliform (MPN/100mL)

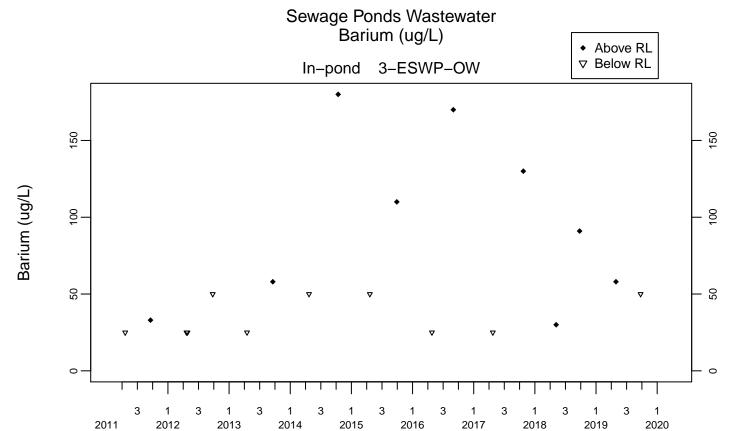


Sewage Ponds Wastewater Total Coliform (MPN/100mL)

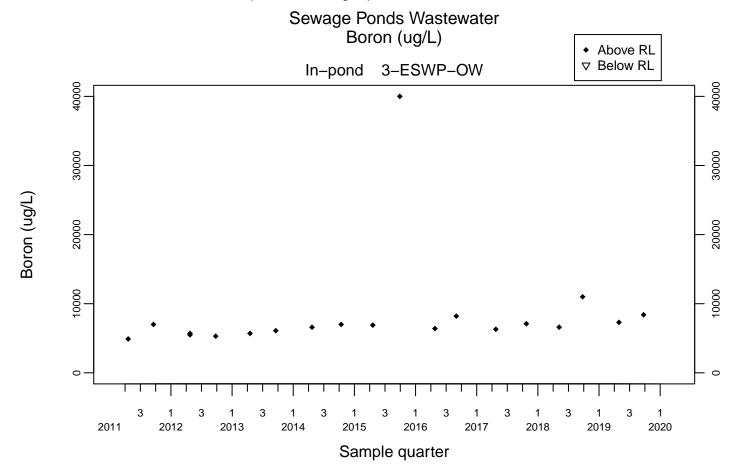


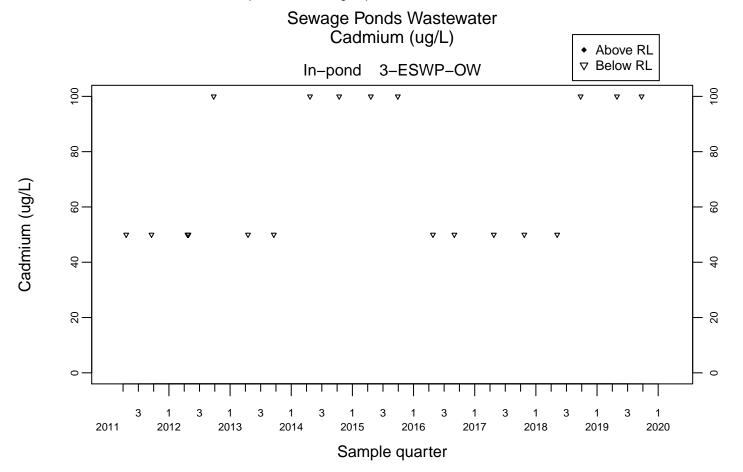


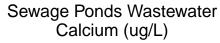


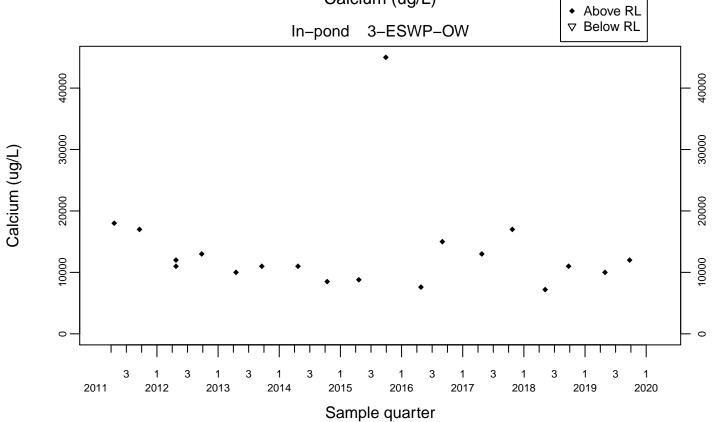


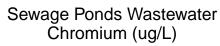
Sample quarter

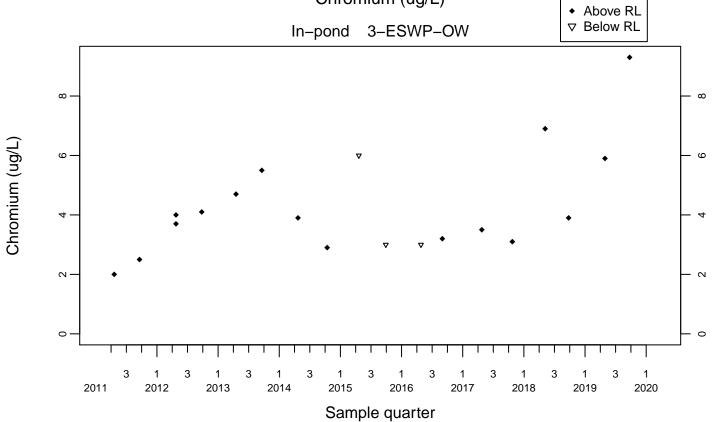


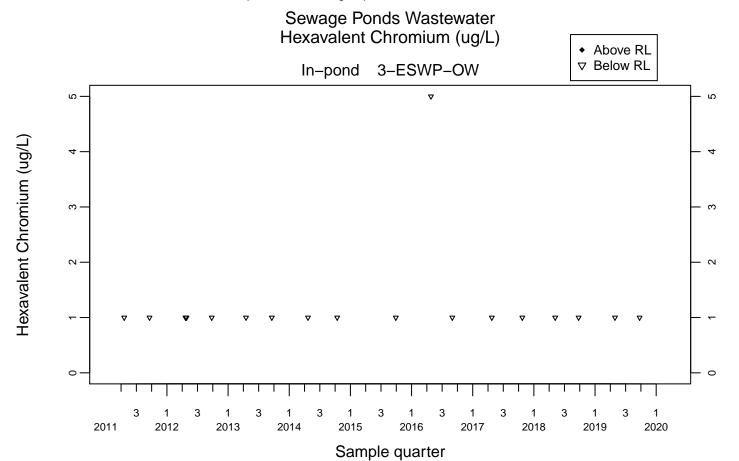


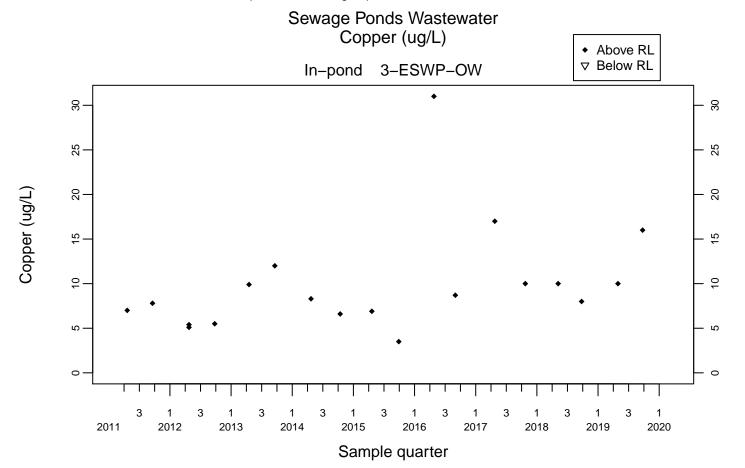


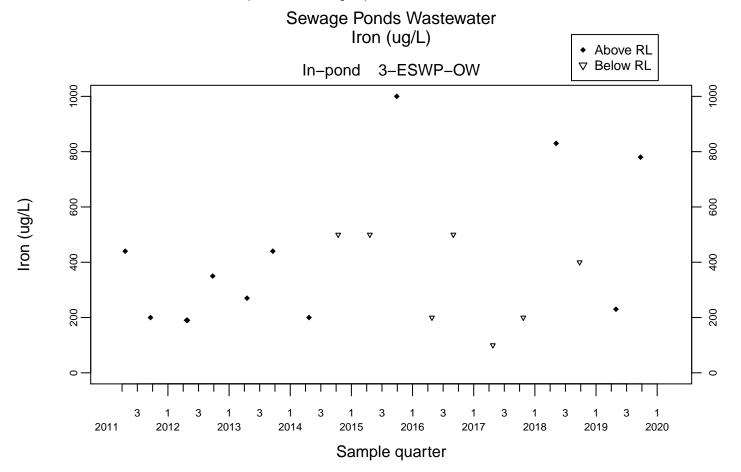


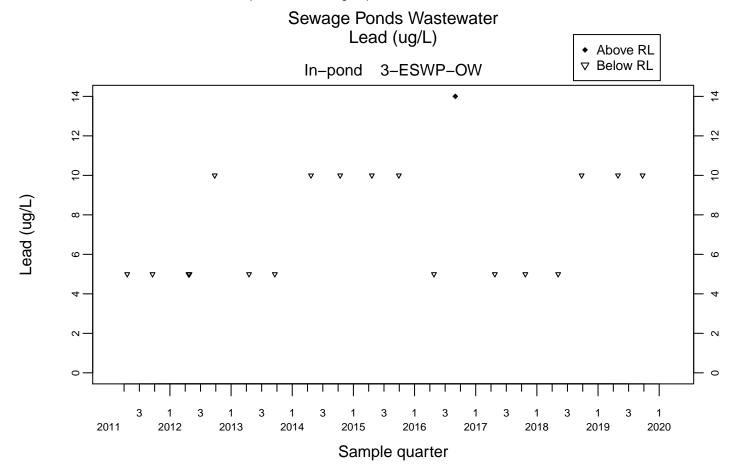


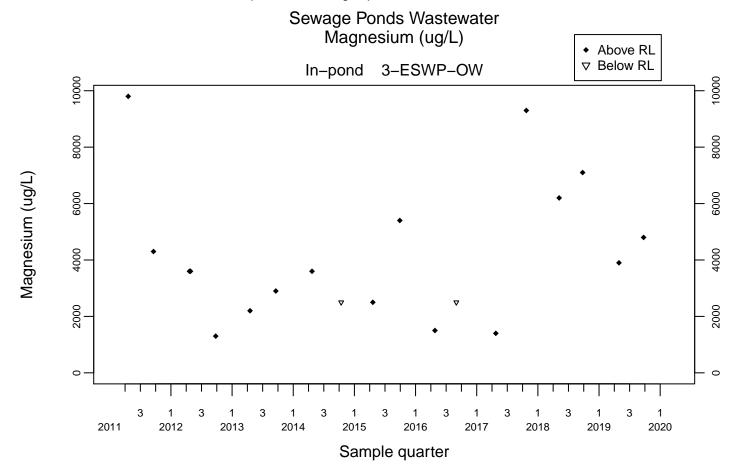


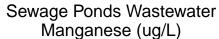


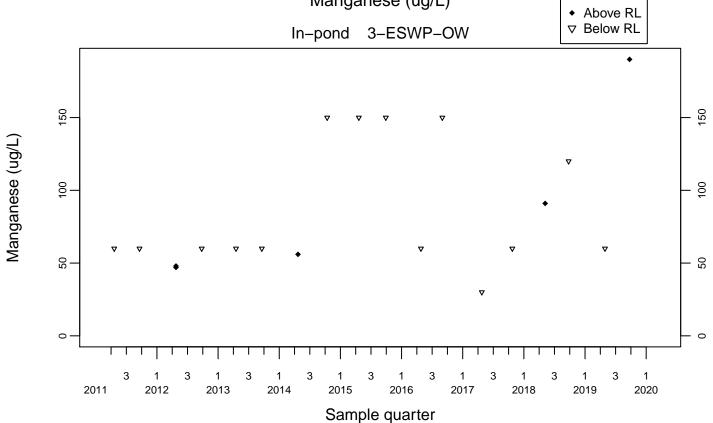


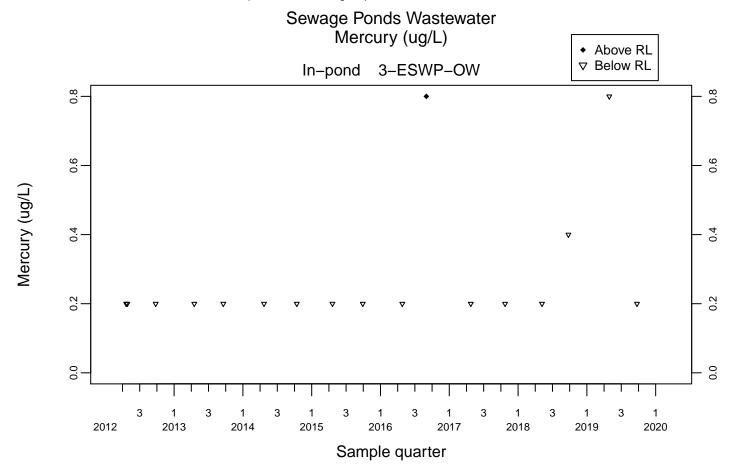


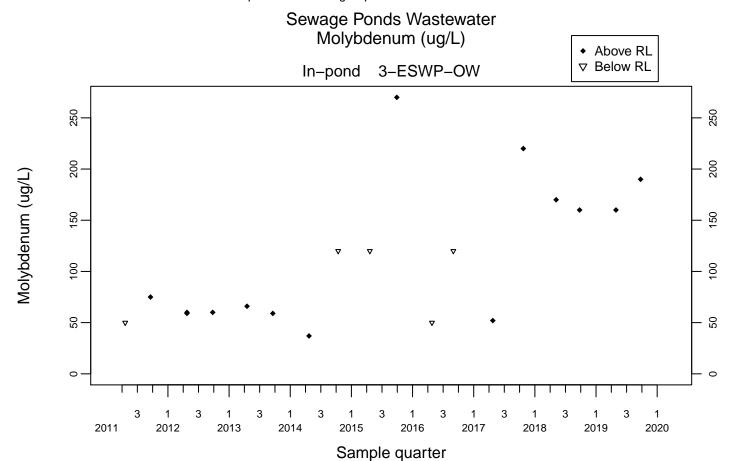


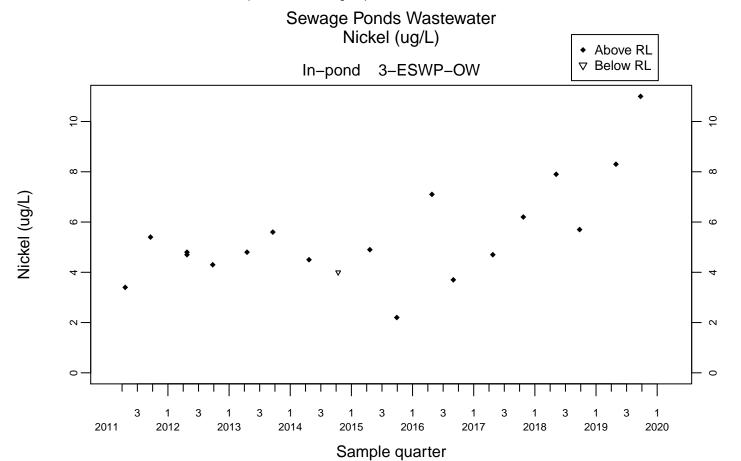


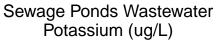


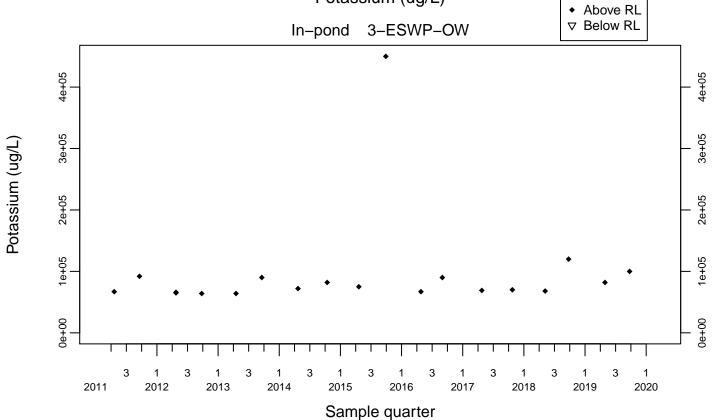


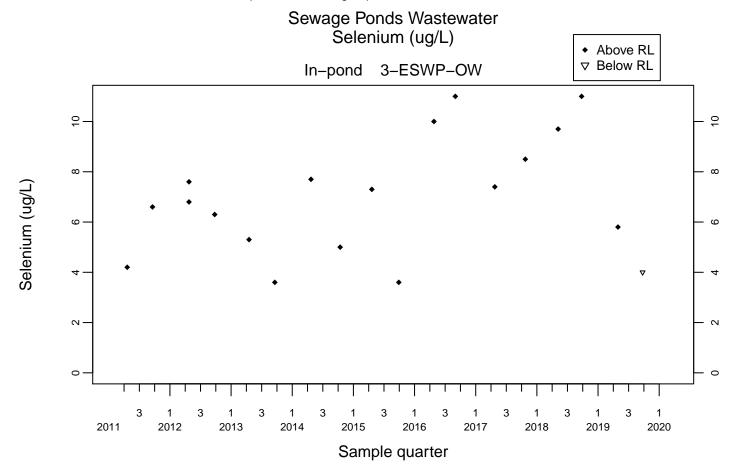


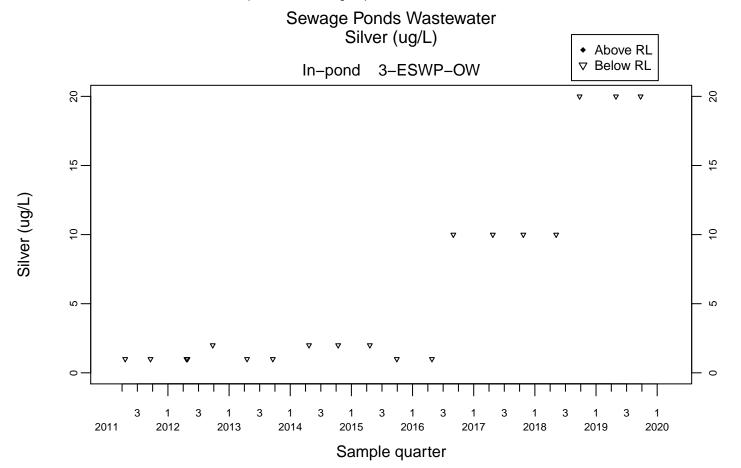


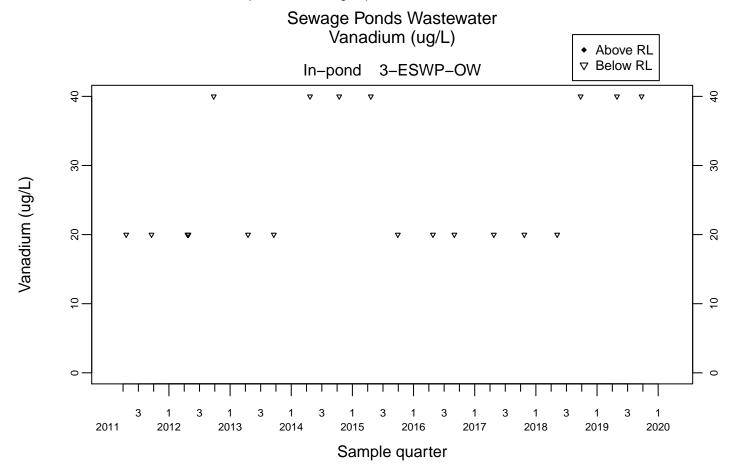


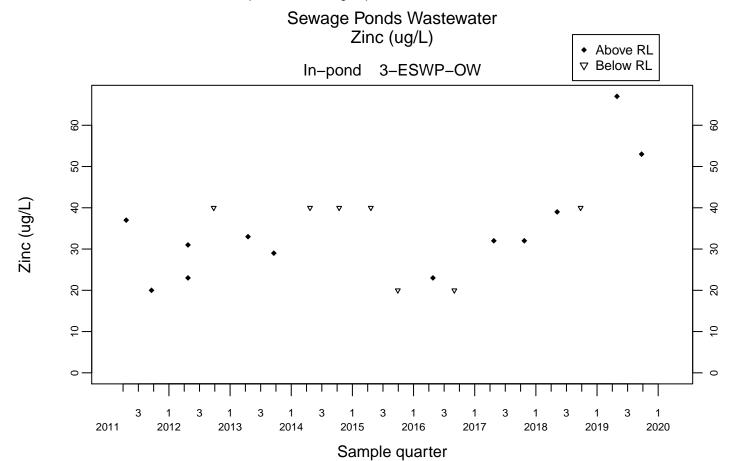


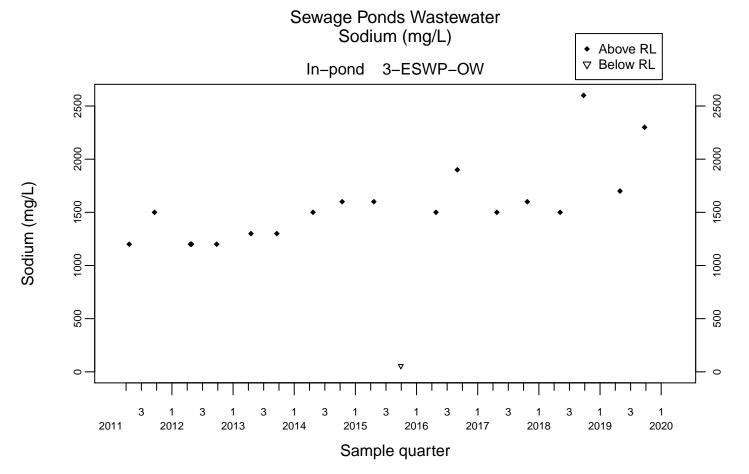




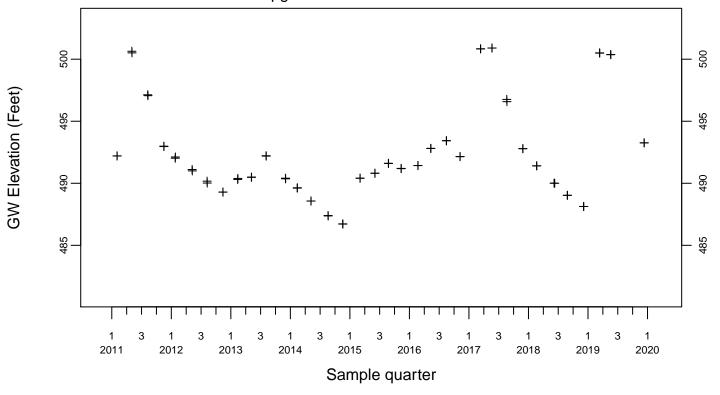


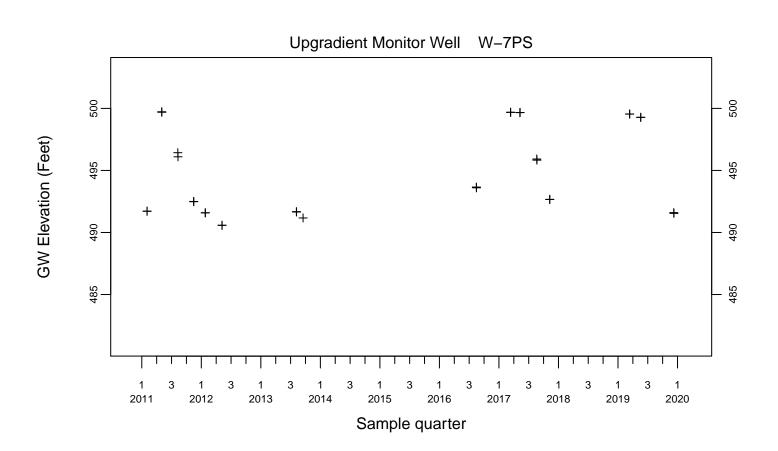




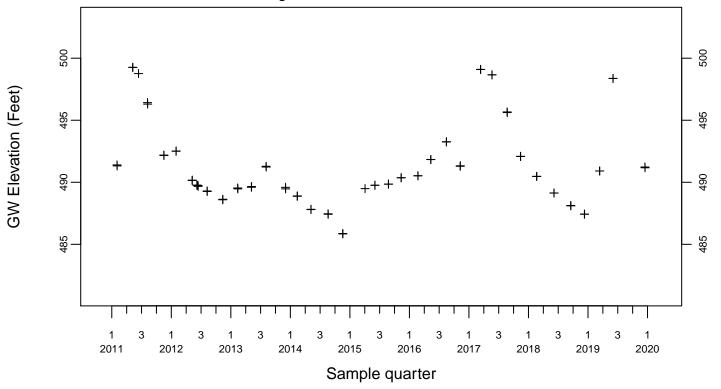


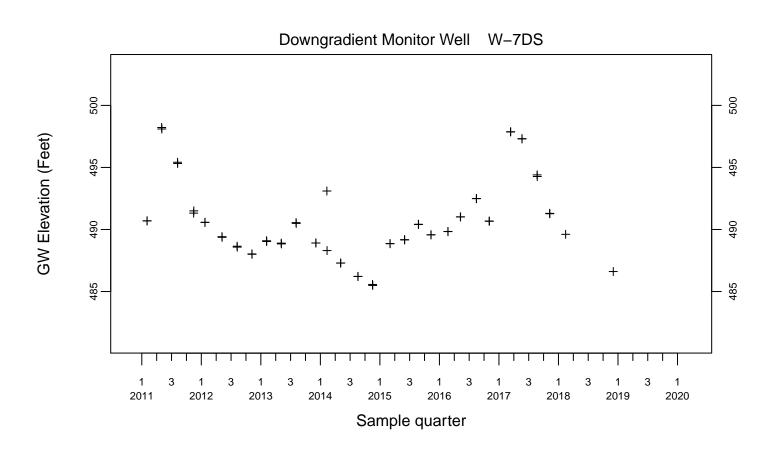
Upgradient Monitor Well W-7ES



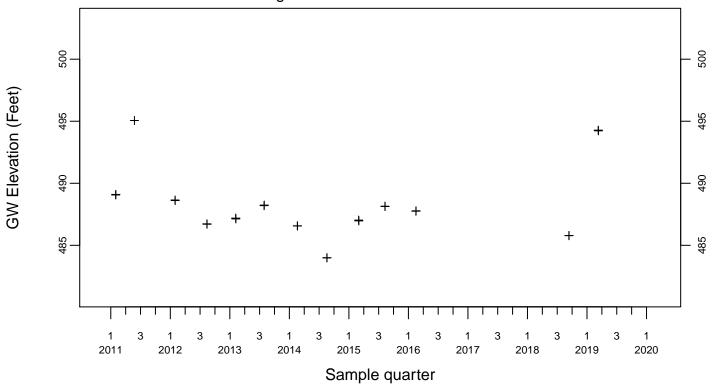


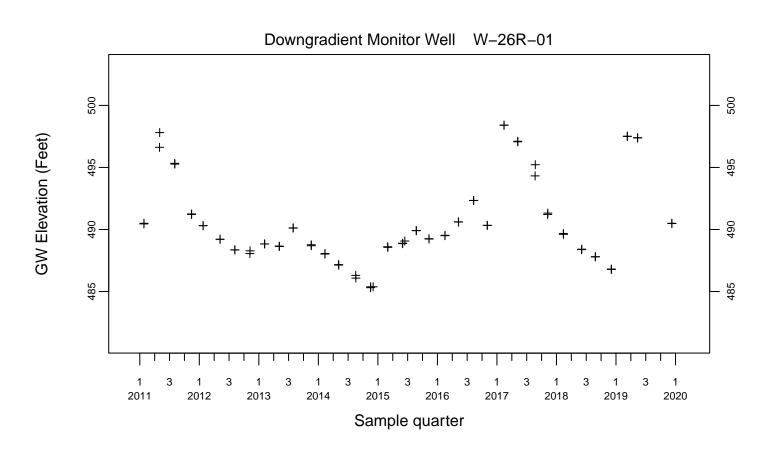
Crossgradient Monitor Well W-35A-04



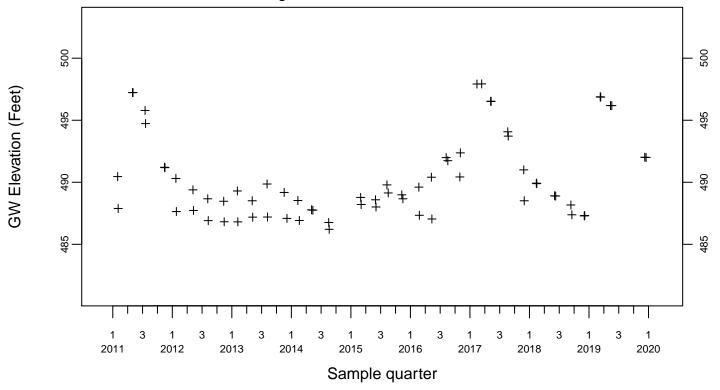


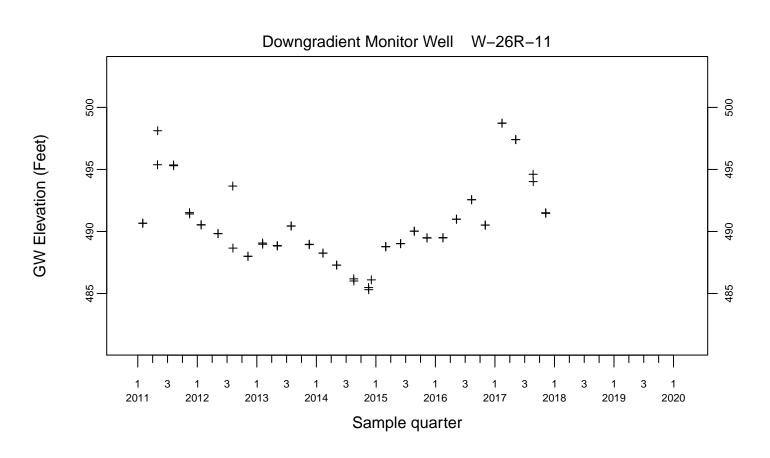
Downgradient Monitor Well W-25N-23

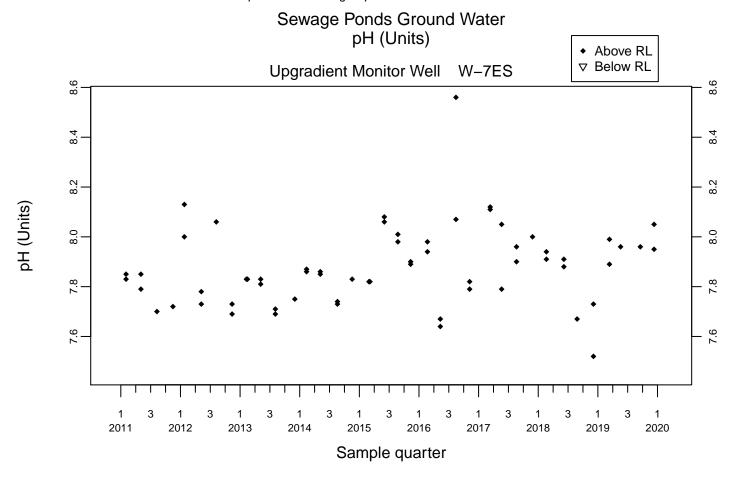


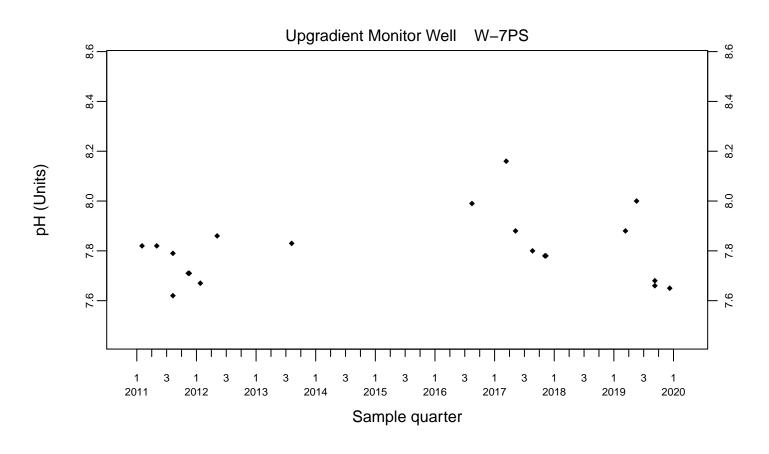


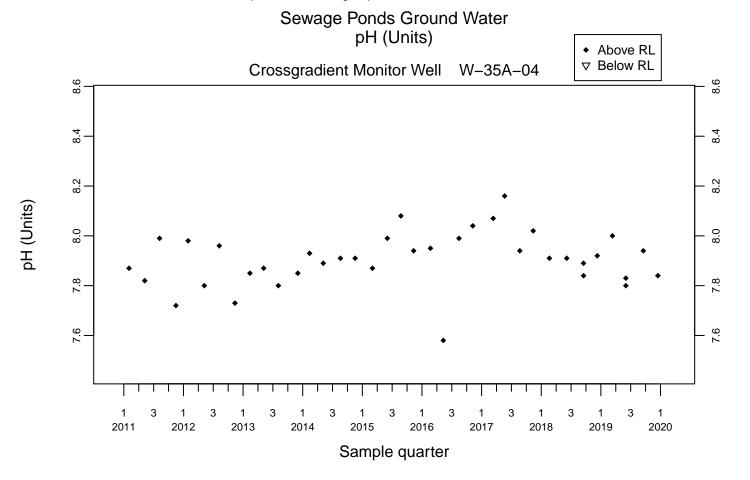
Downgradient Monitor Well W-26R-05

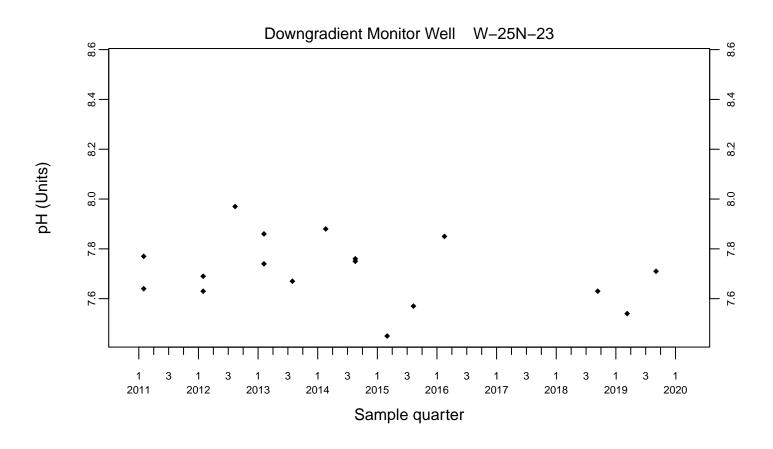


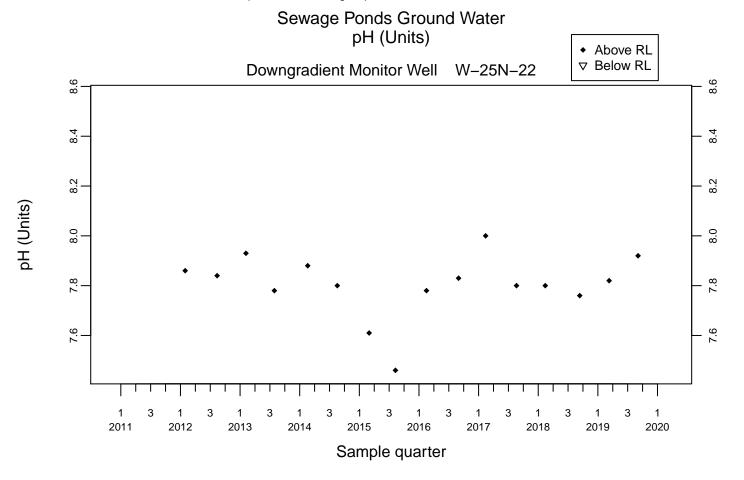


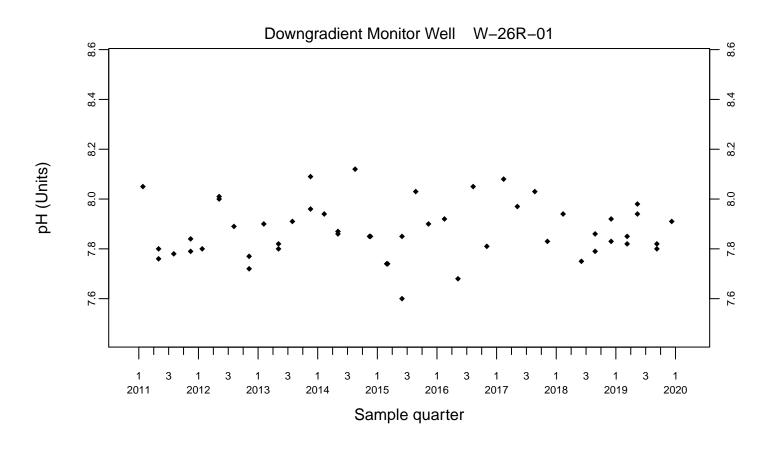


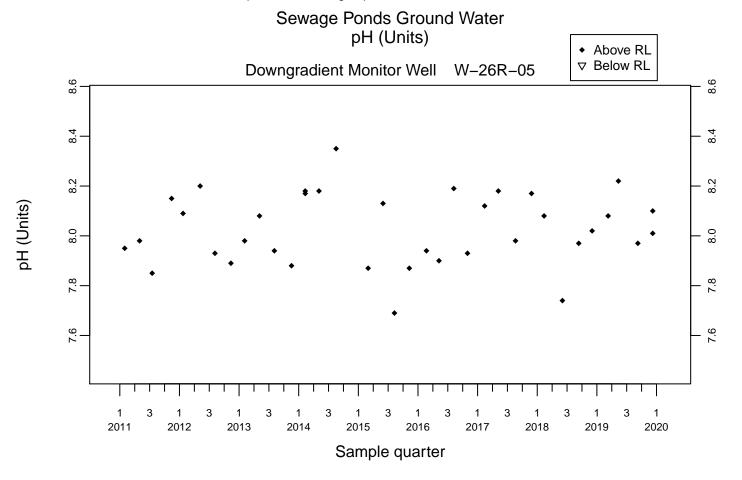


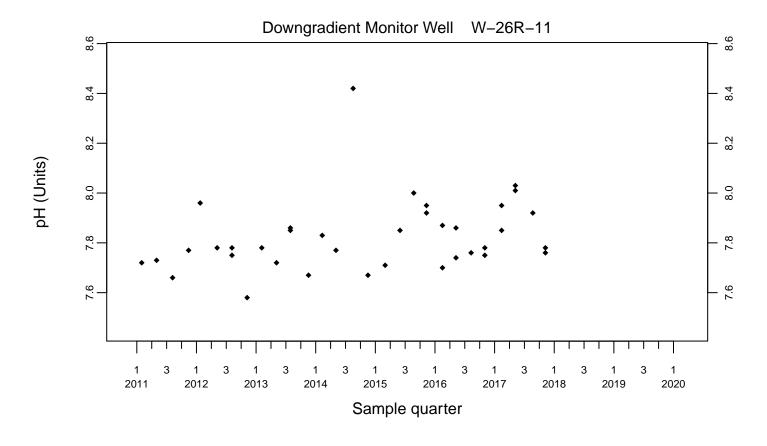


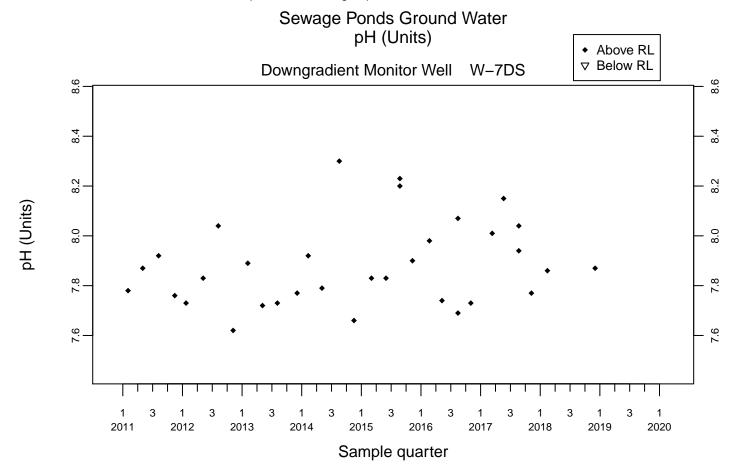








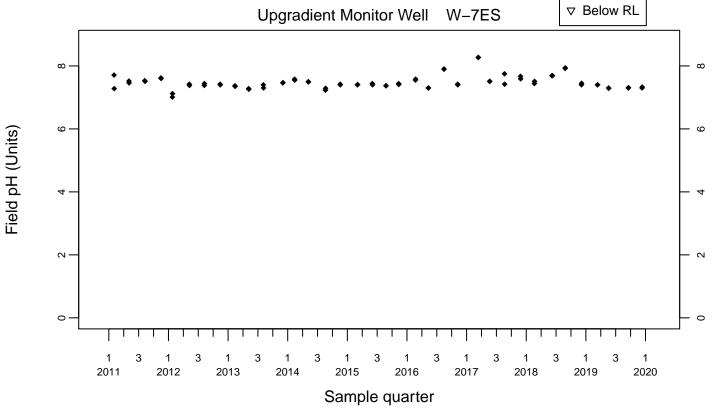


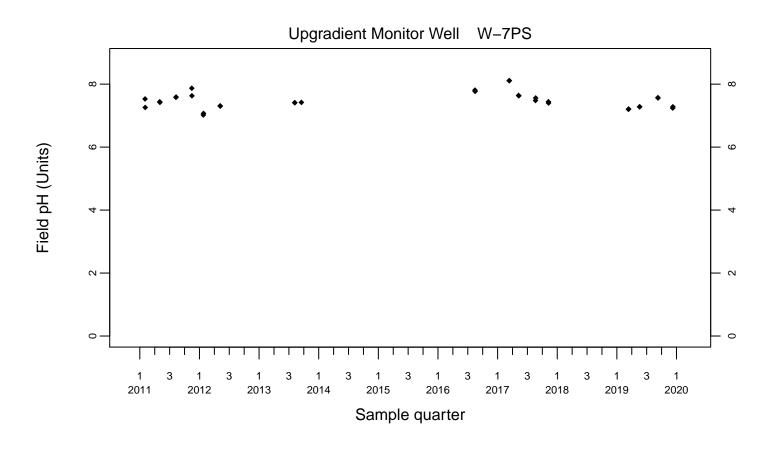


Sewage Ponds Ground Water Field pH (Units)

◆ Above RL

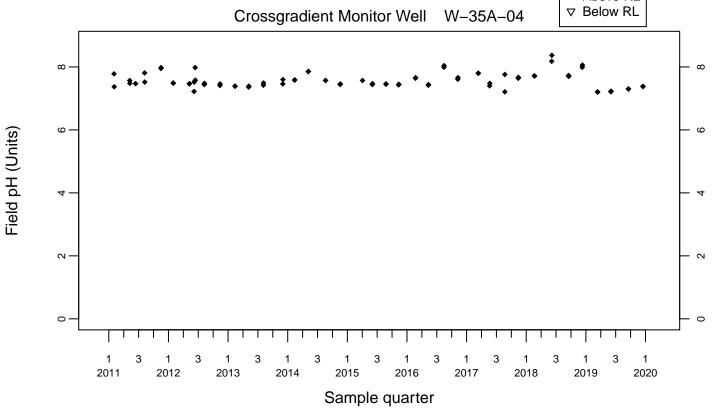
▼ Below RI

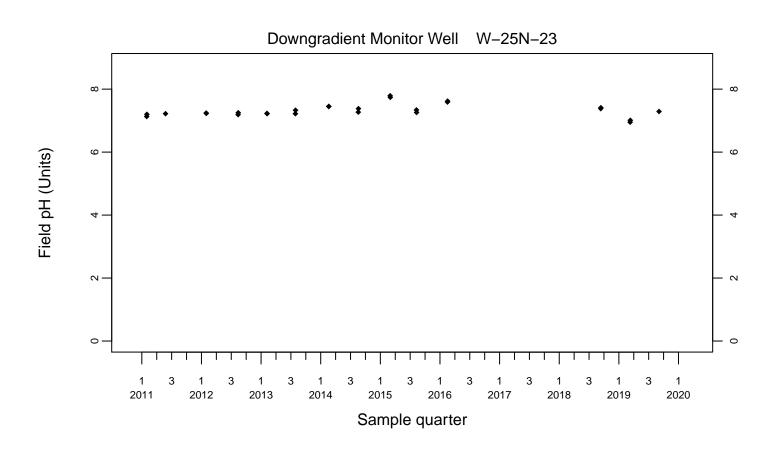


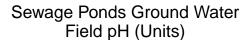


Sewage Ponds Ground Water Field pH (Units)

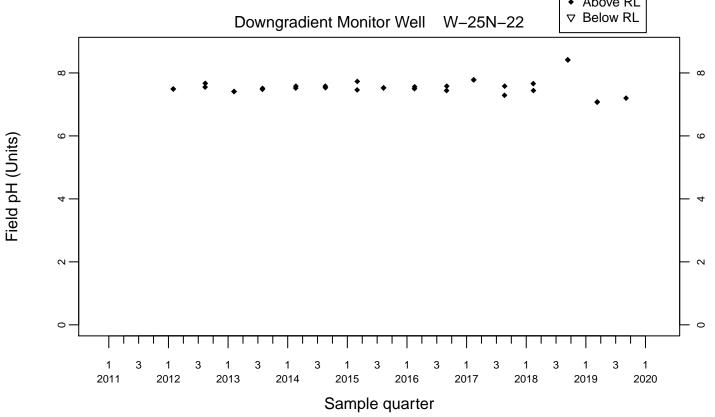
Above RL

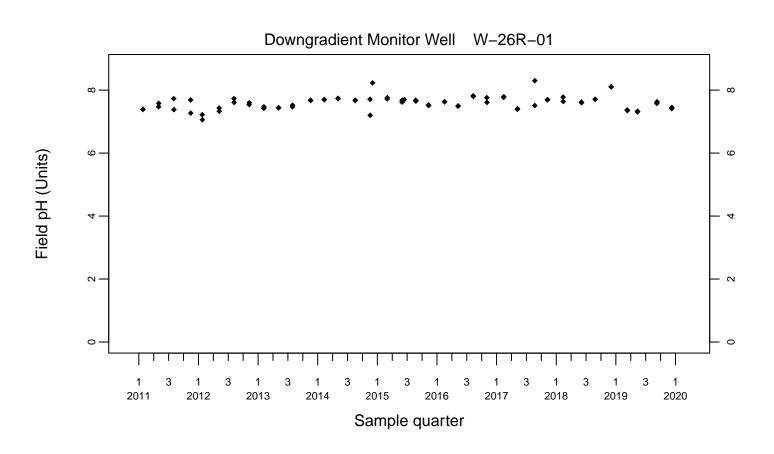






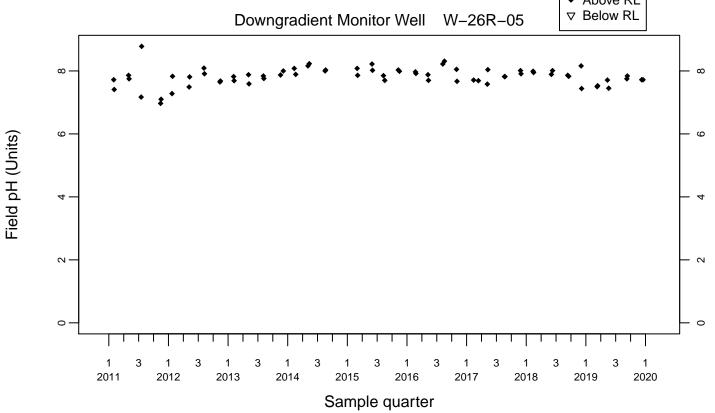


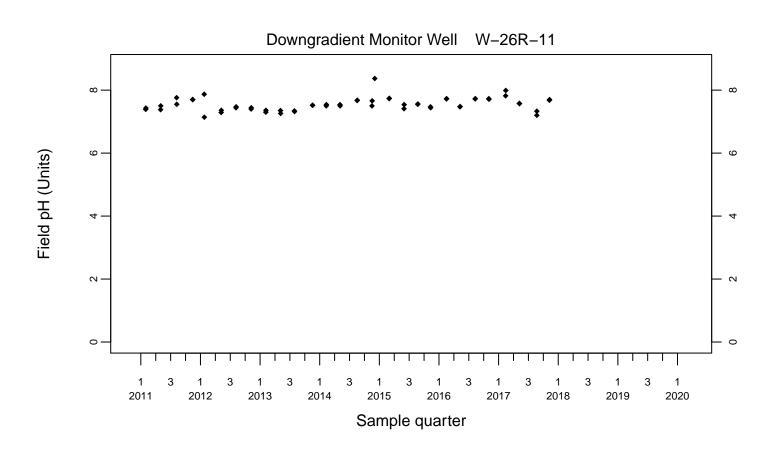


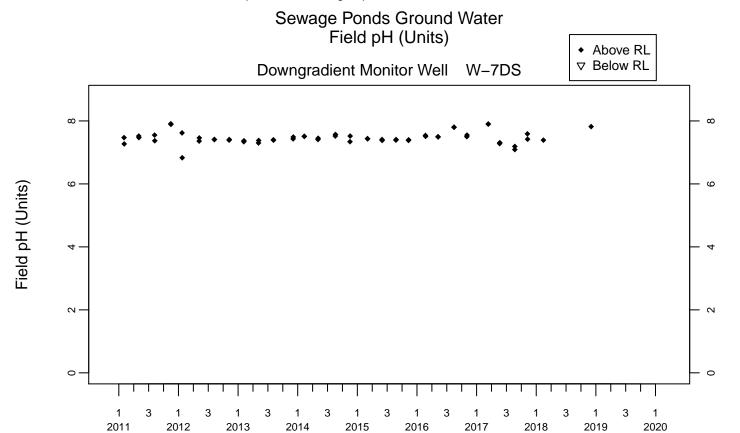


Sewage Ponds Ground Water Field pH (Units)

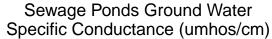




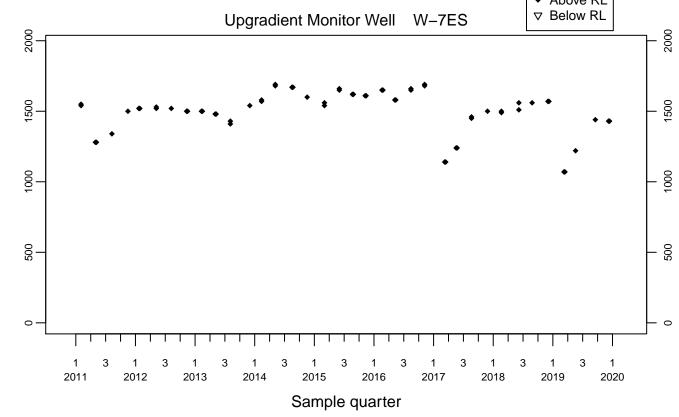




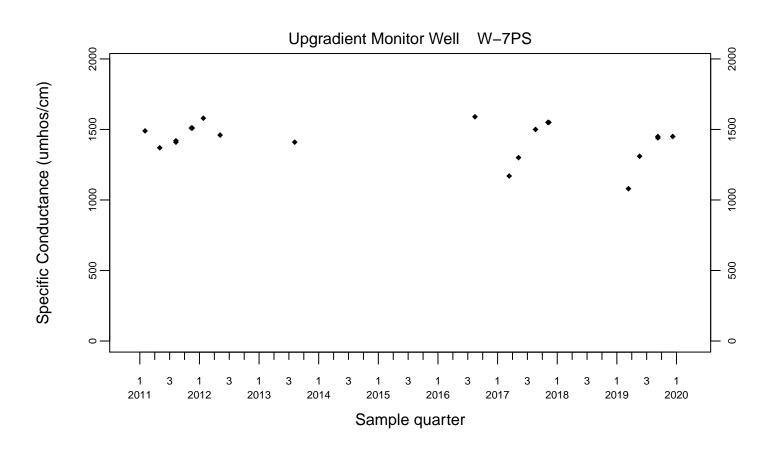
Sample quarter



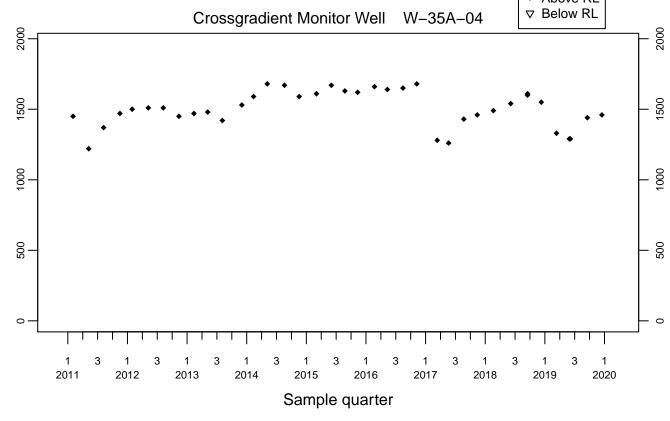




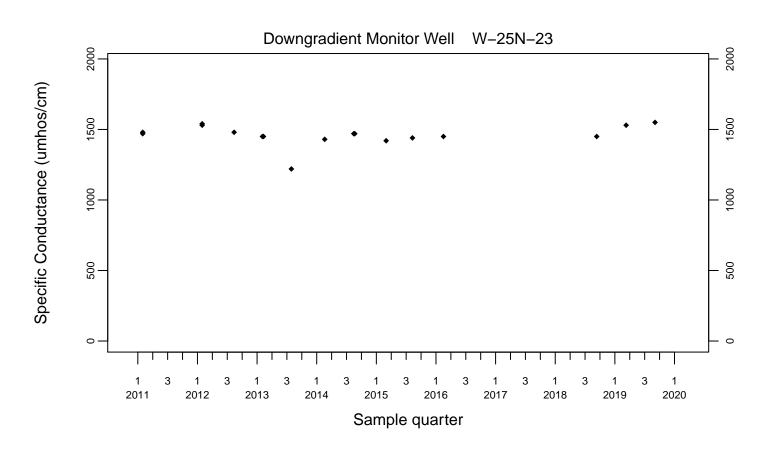
Specific Conductance (umhos/cm)

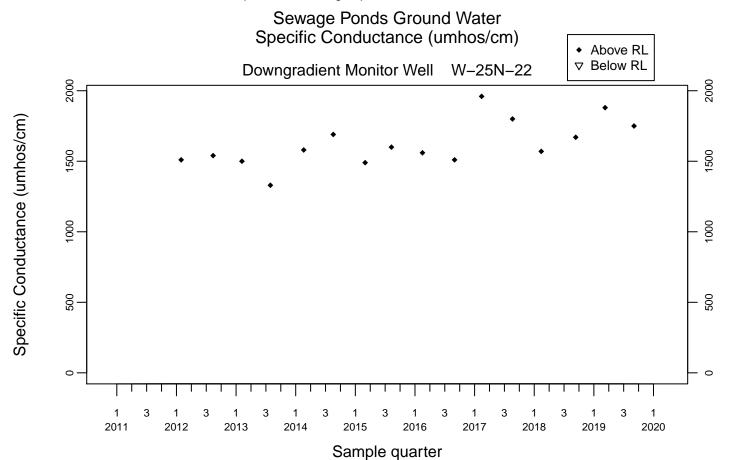


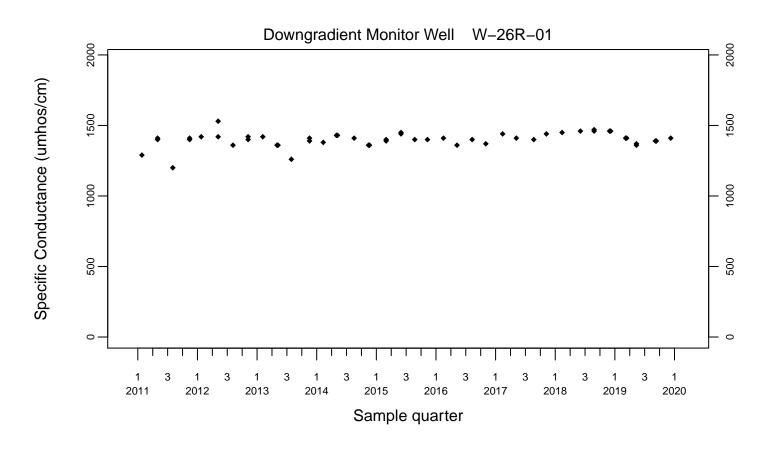


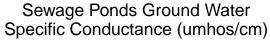


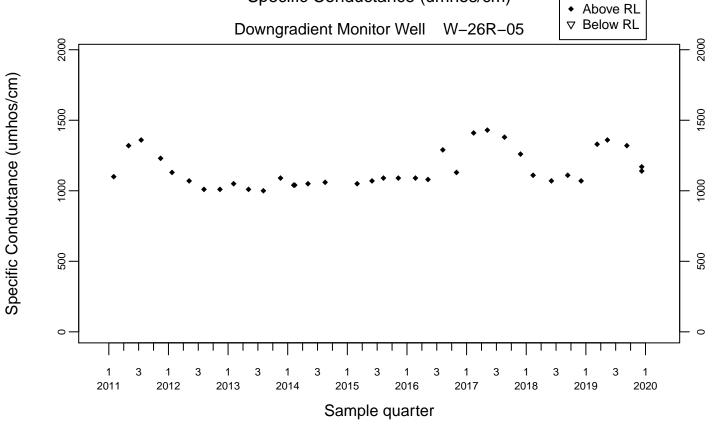
Specific Conductance (umhos/cm)

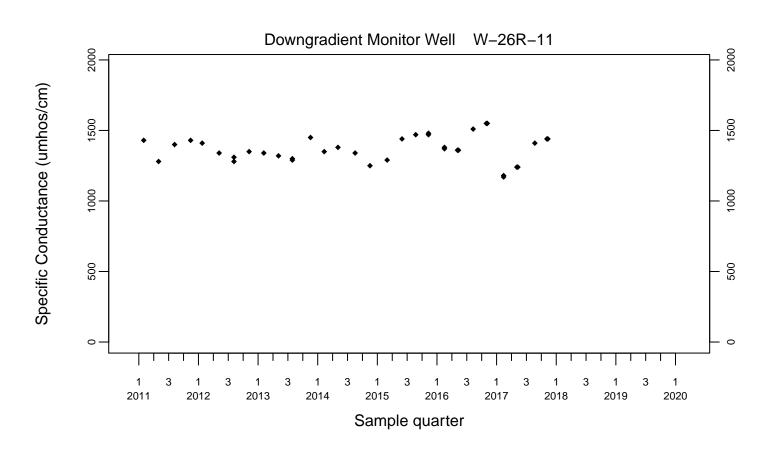


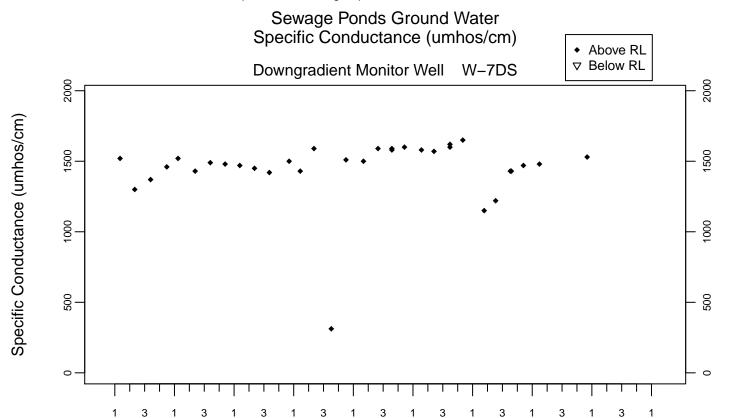




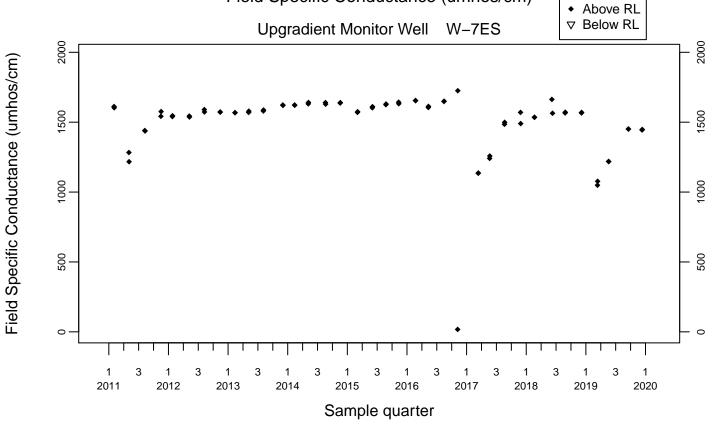


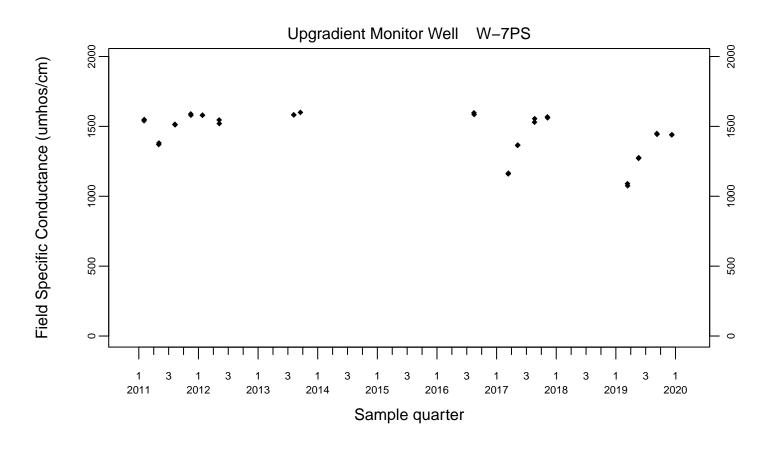


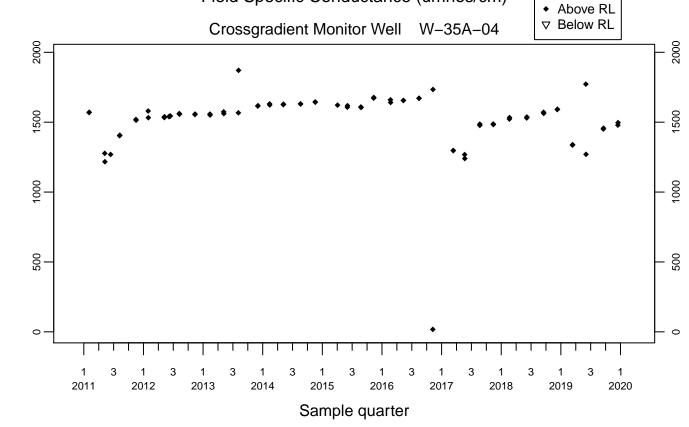




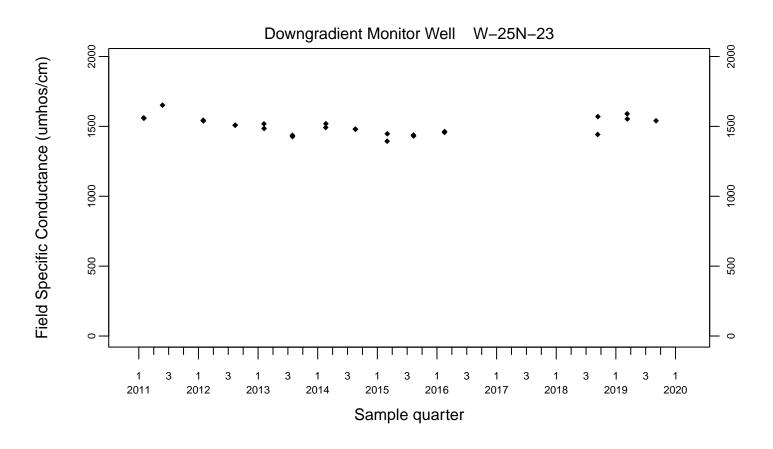
Sample quarter

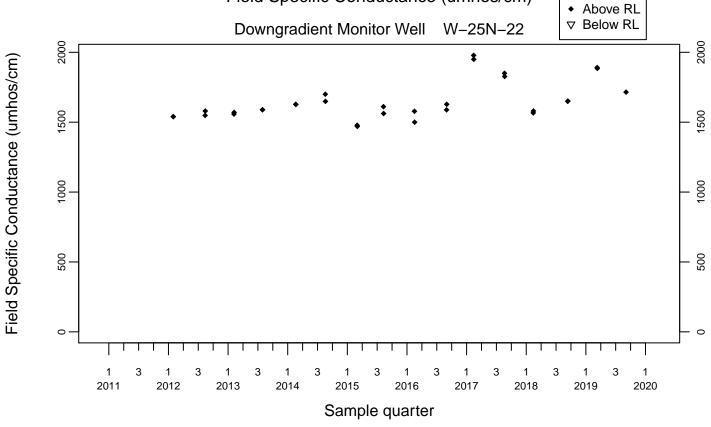


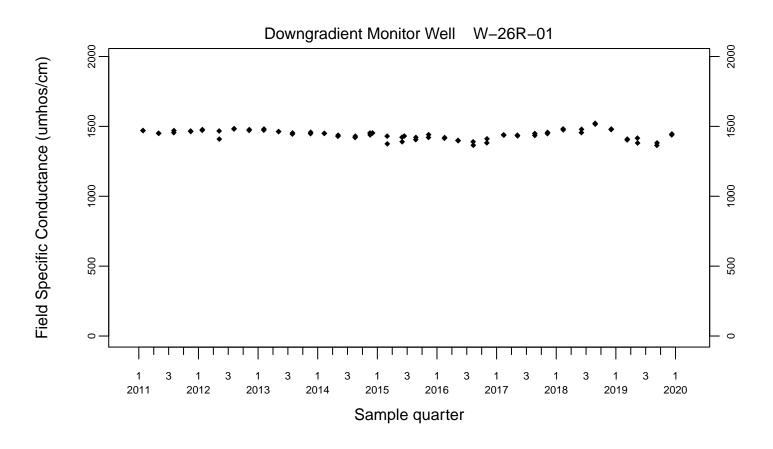


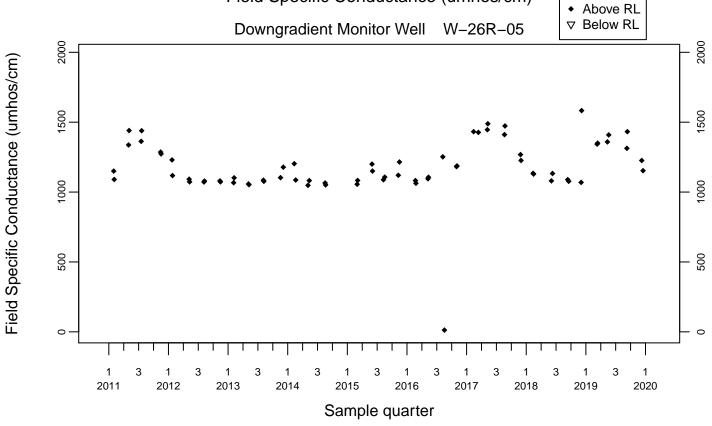


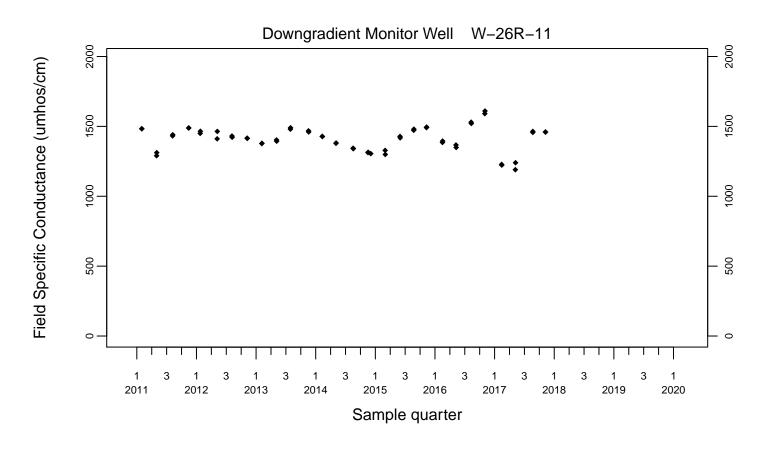
Field Specific Conductance (umhos/cm)

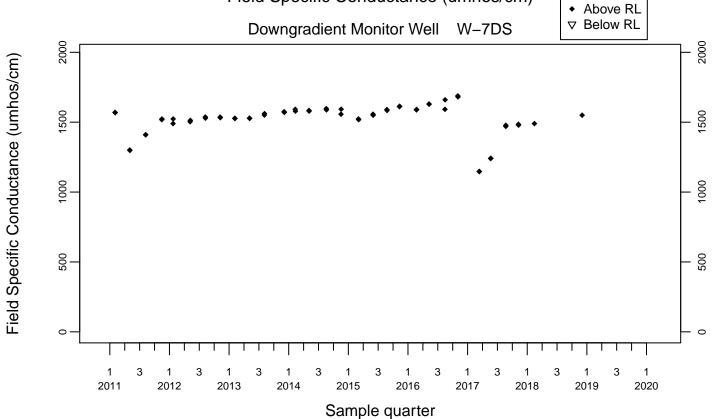


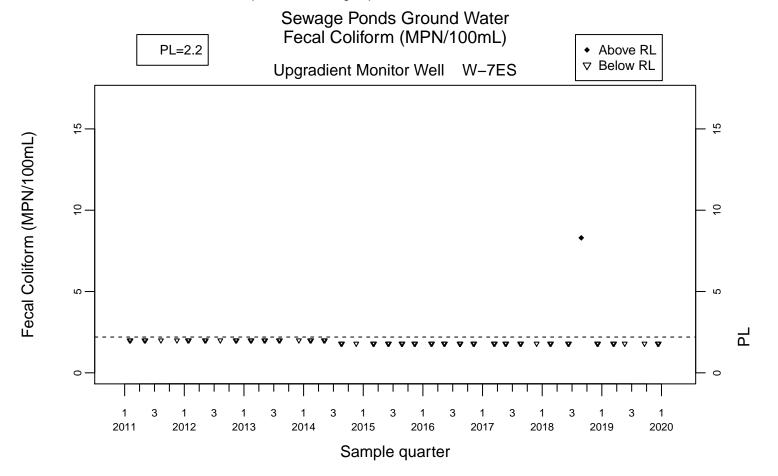


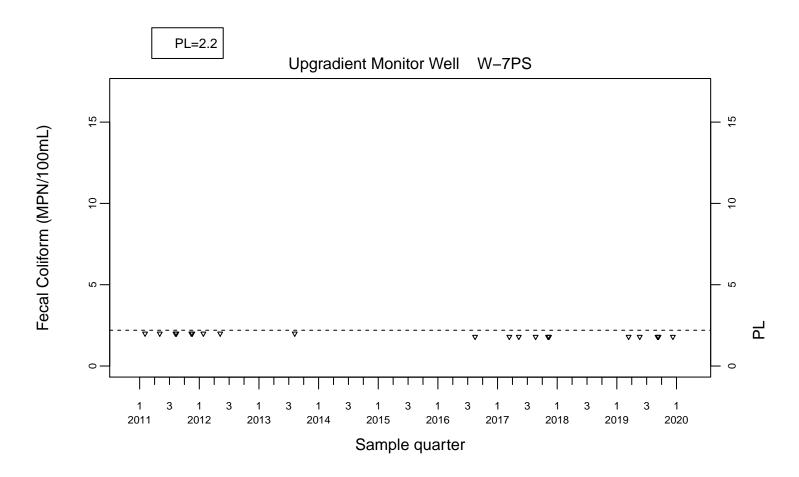


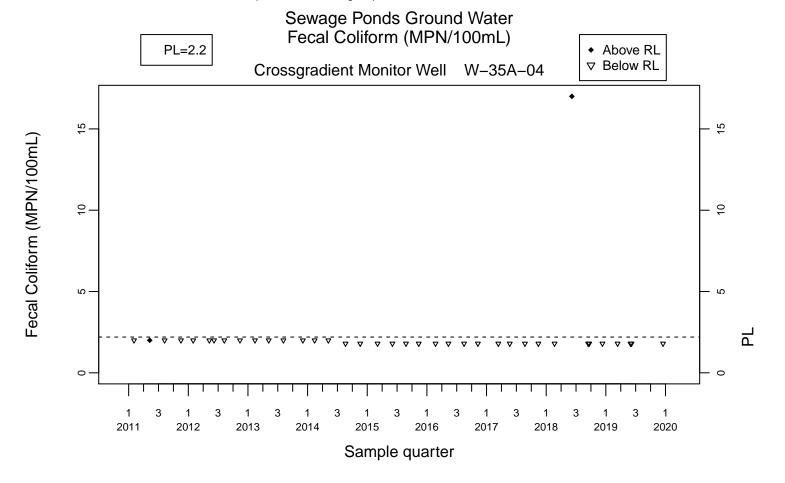


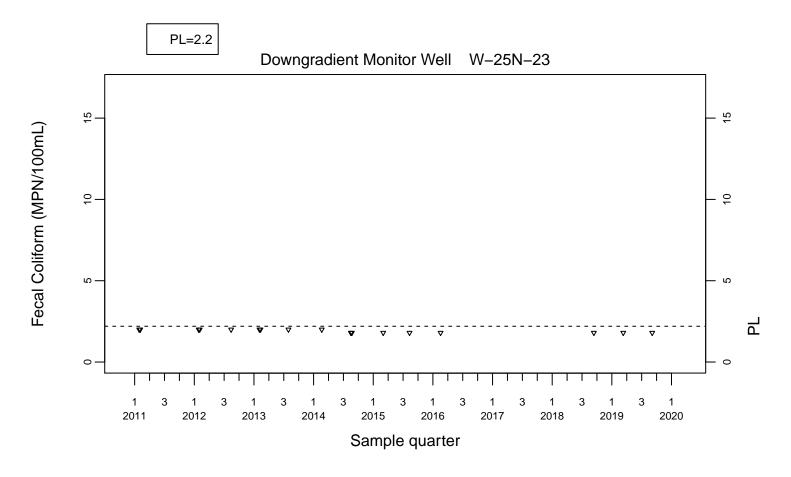


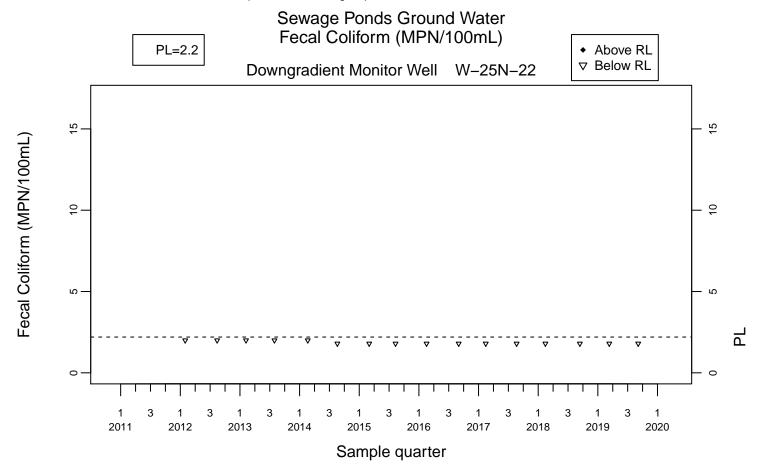


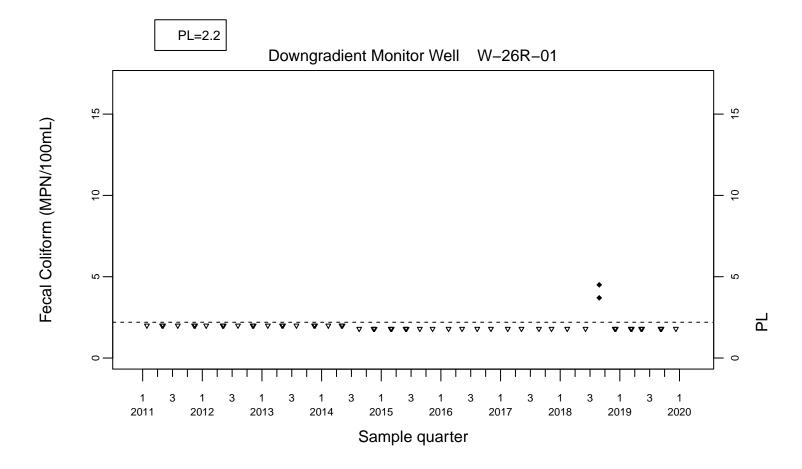


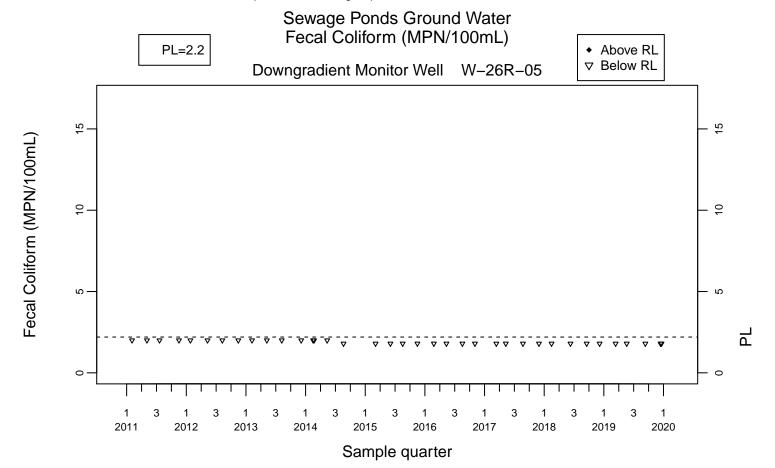


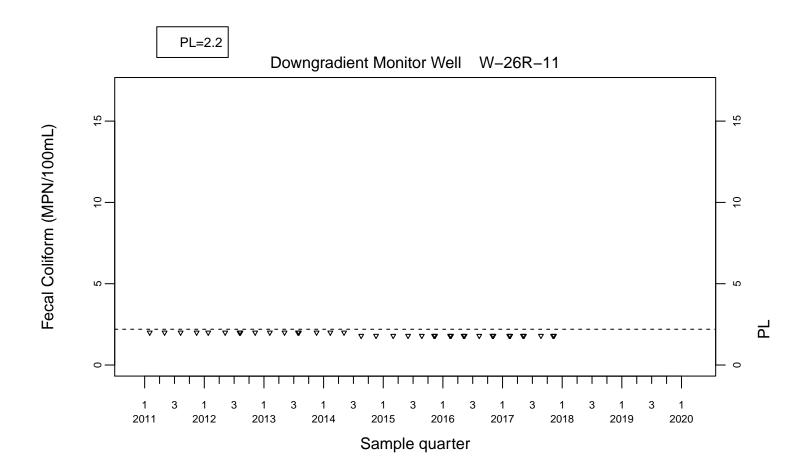


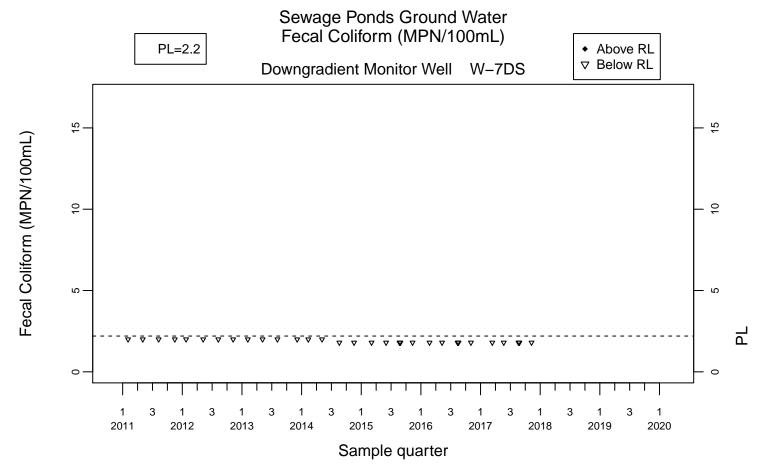




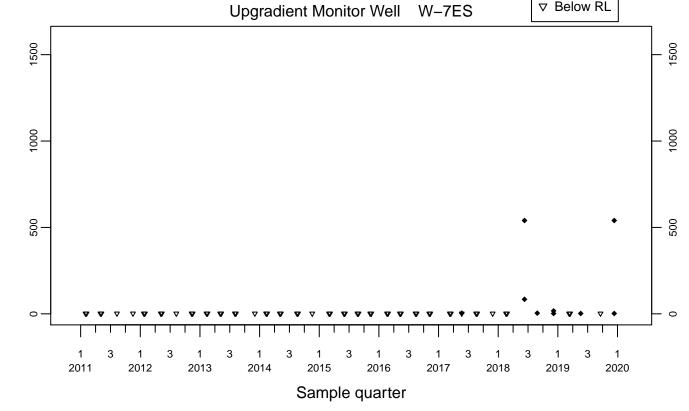




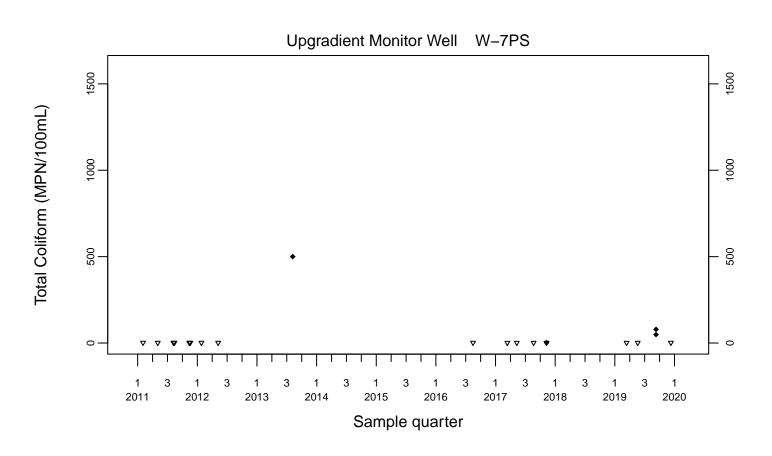




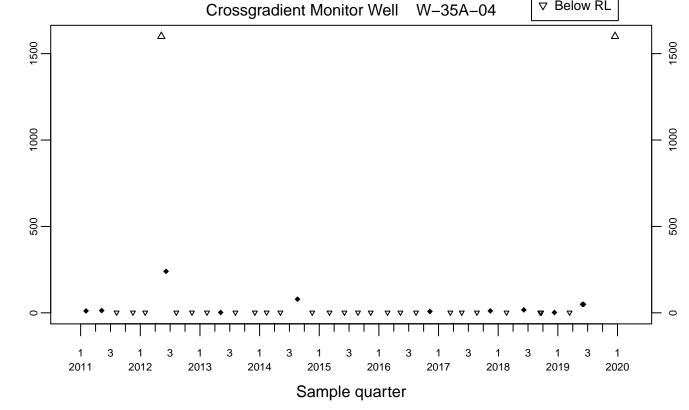




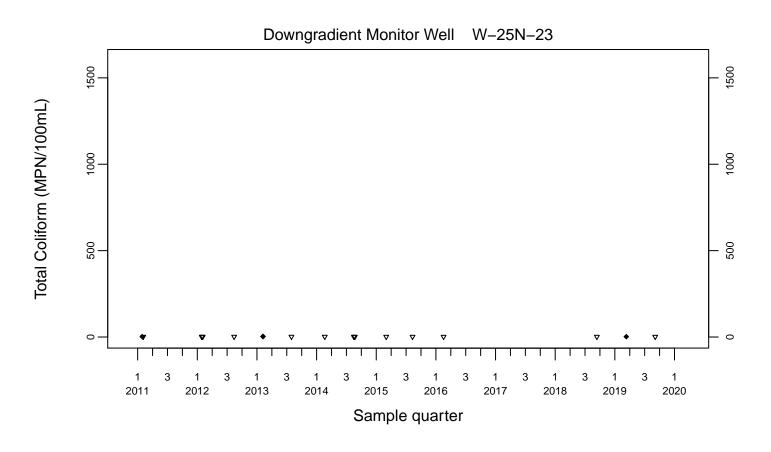
Total Coliform (MPN/100mL)



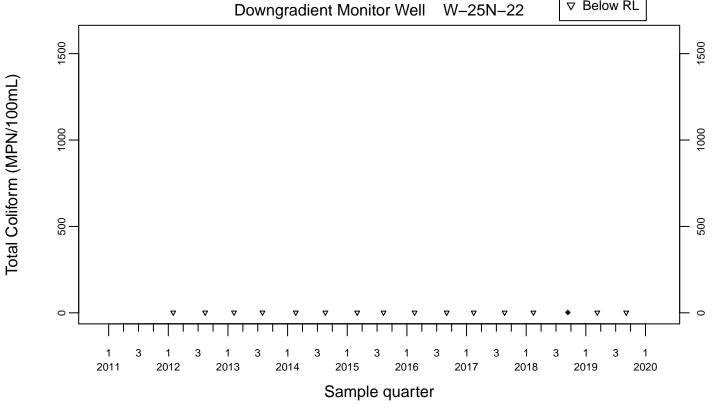
◆ Above RL▽ Below RL

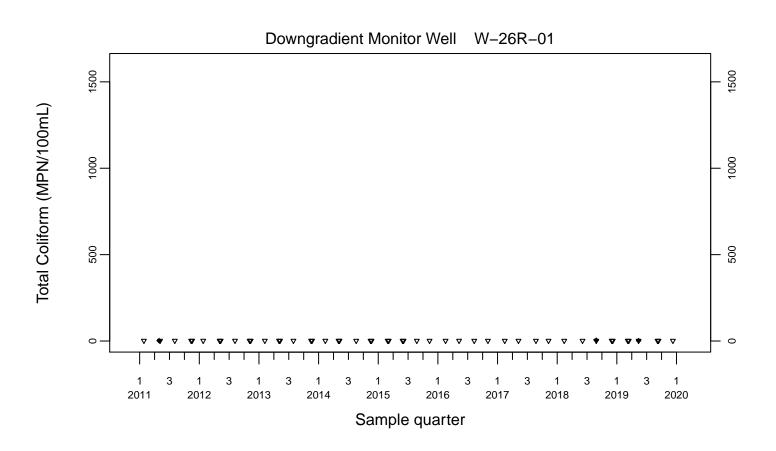


Total Coliform (MPN/100mL)

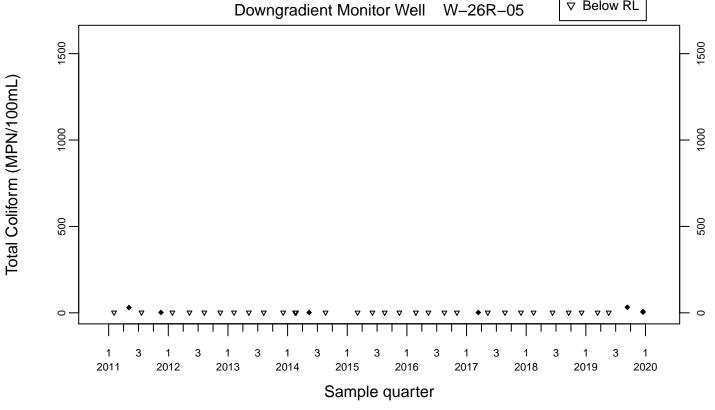


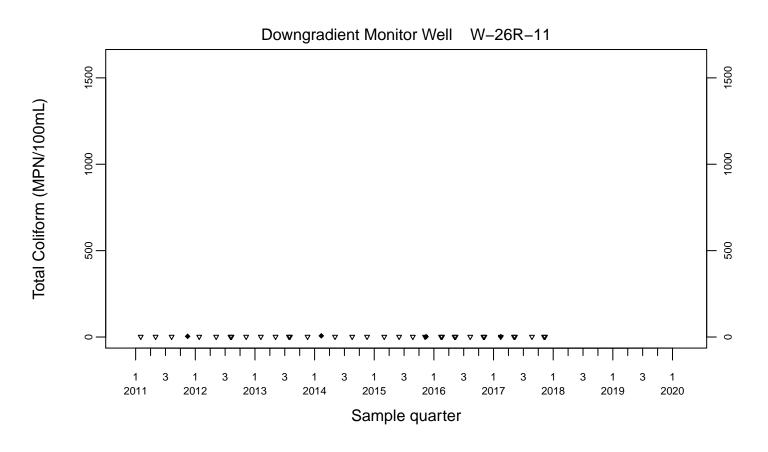








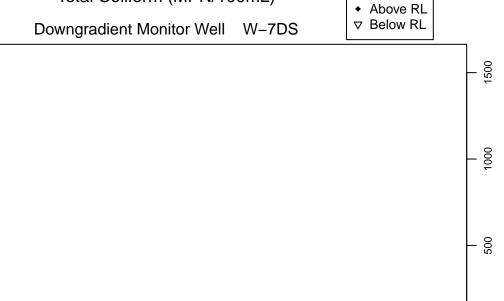


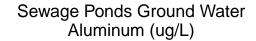


Sample quarter

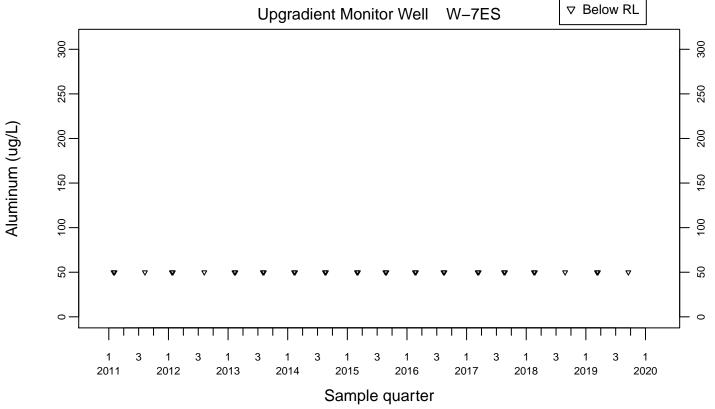
Total Coliform (MPN/100mL)

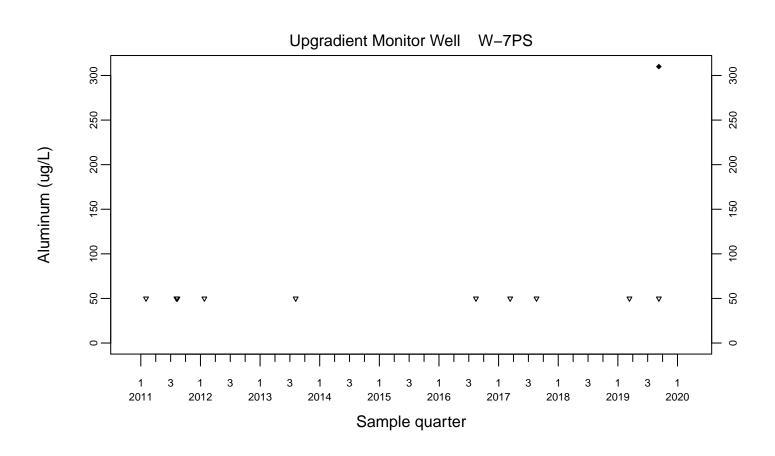
Sewage Ponds Ground Water Total Coliform (MPN/100mL)

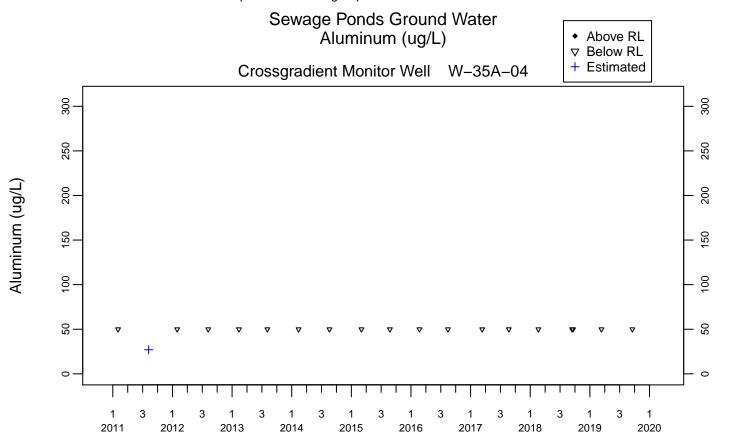


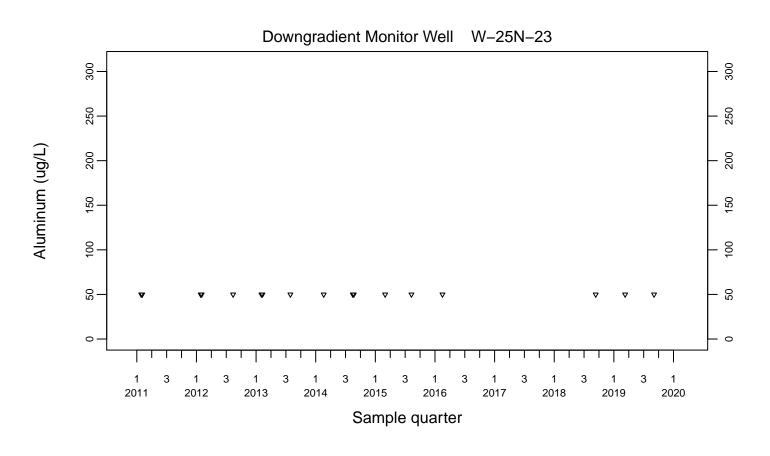


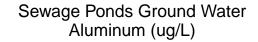






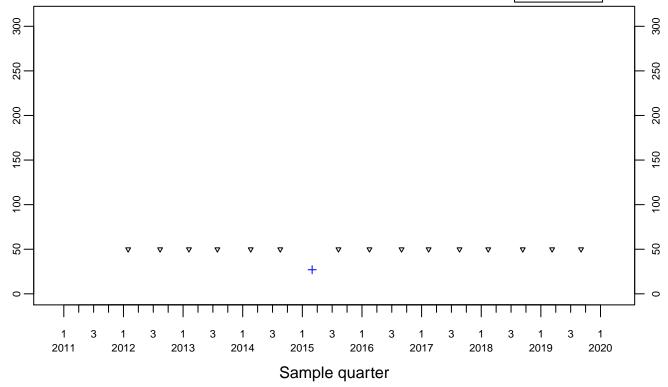




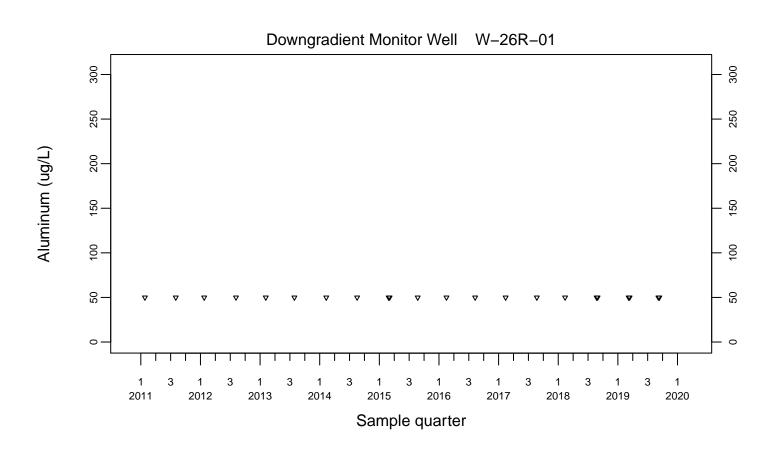


◆ Above RL▽ Below RL+ Estimated



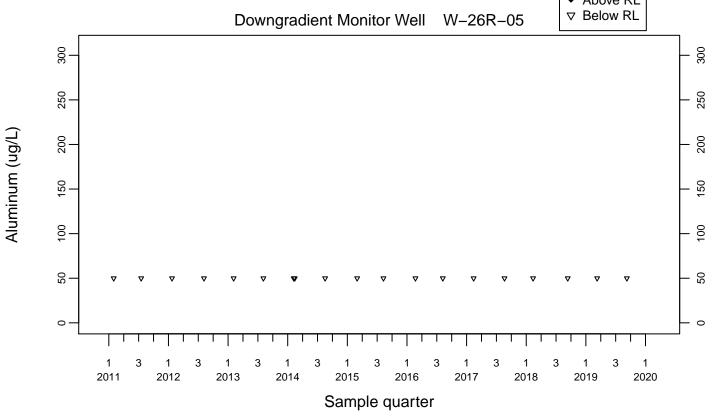


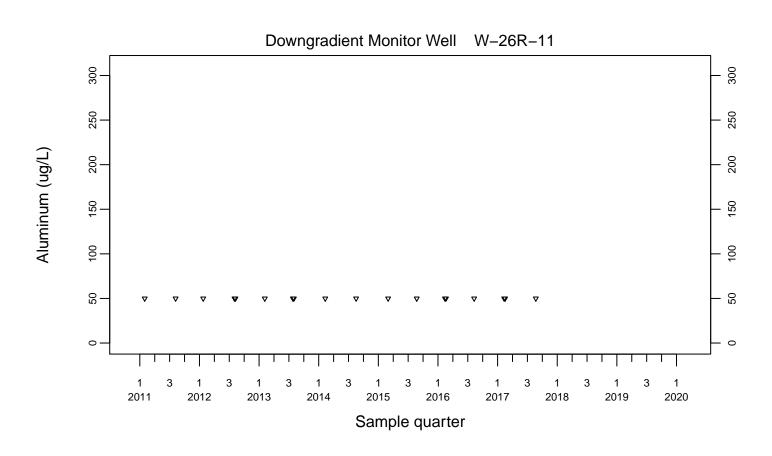
Aluminum (ug/L)

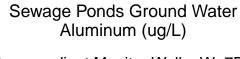


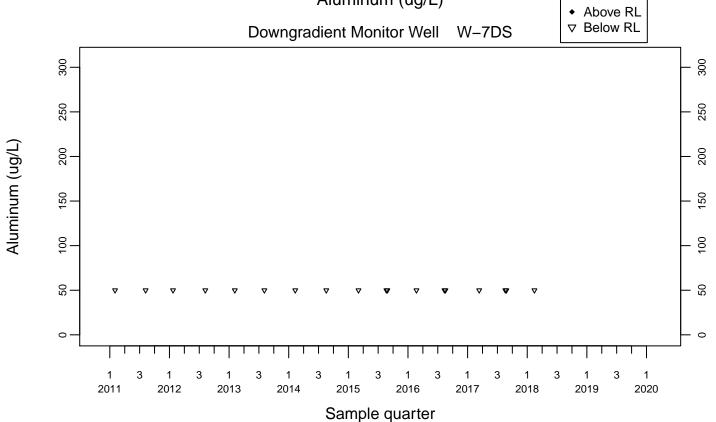
Sewage Ponds Ground Water Aluminum (ug/L)

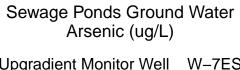


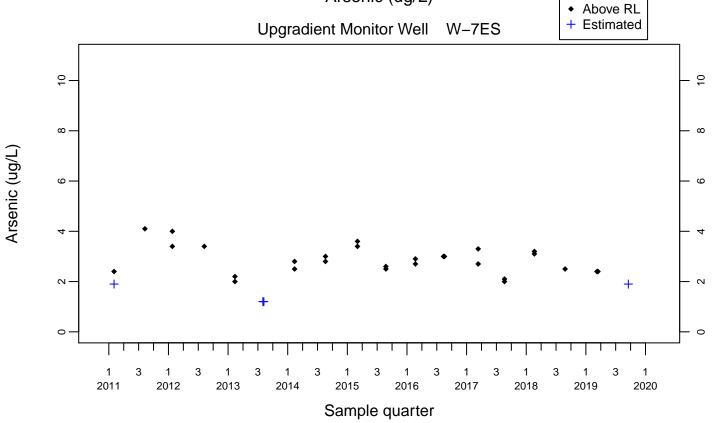


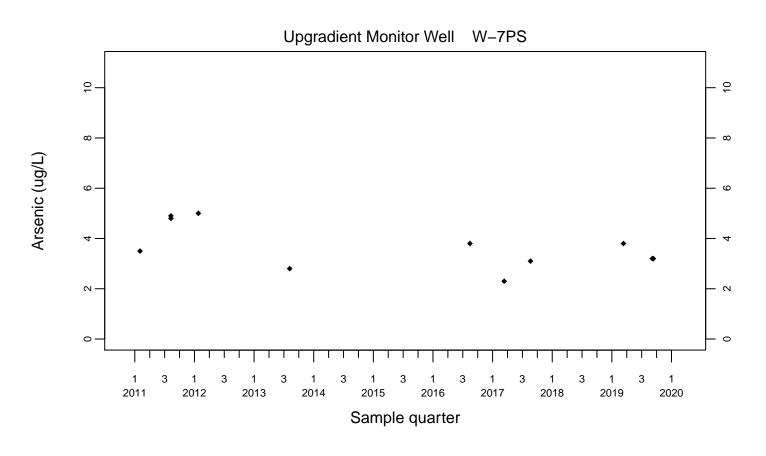


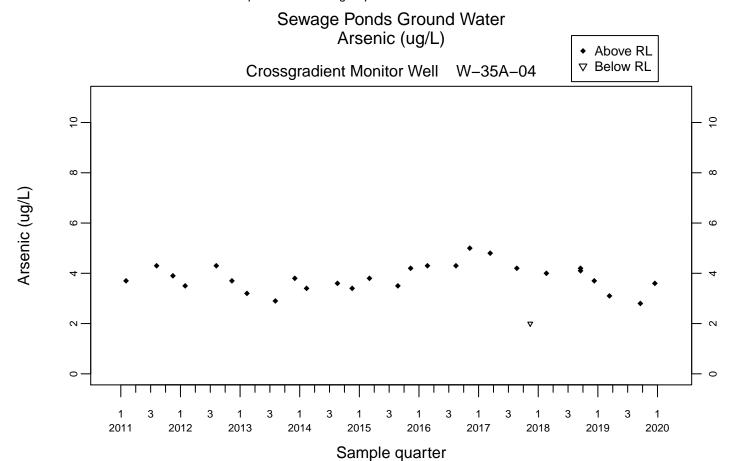


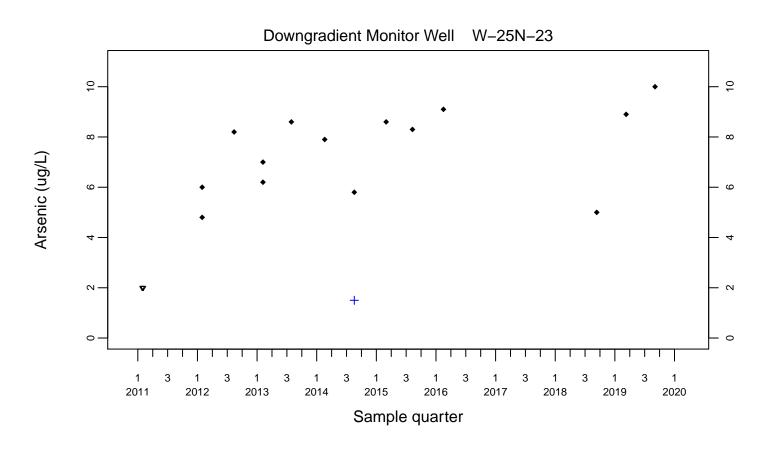


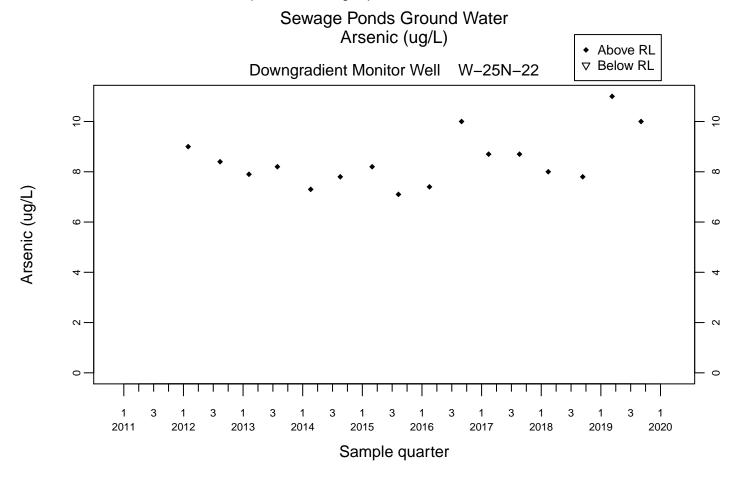


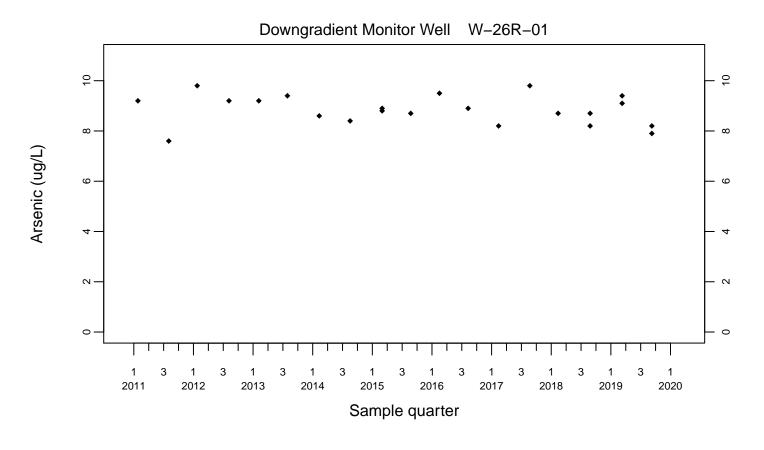


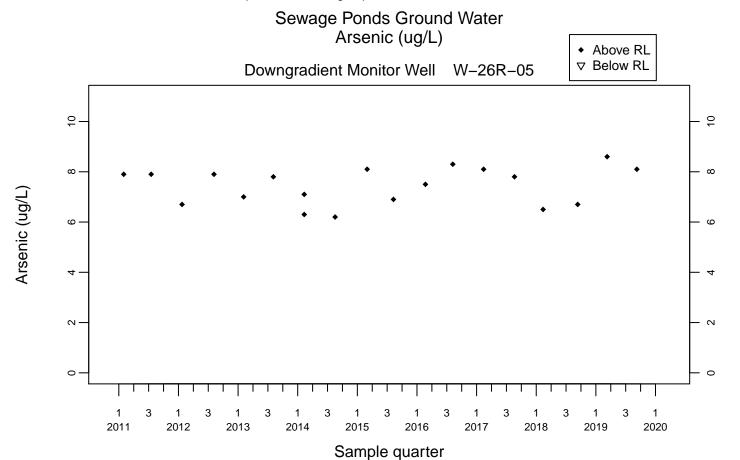


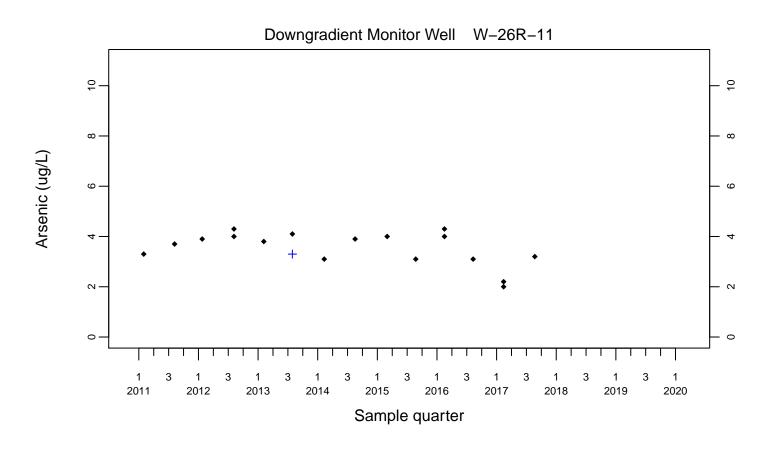


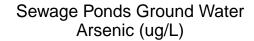




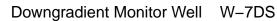


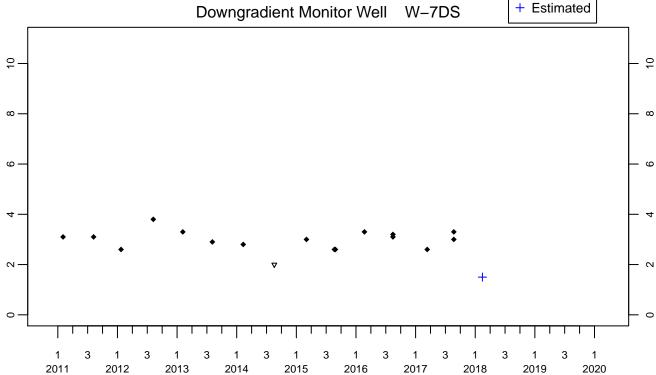






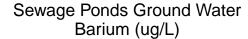
Above RL



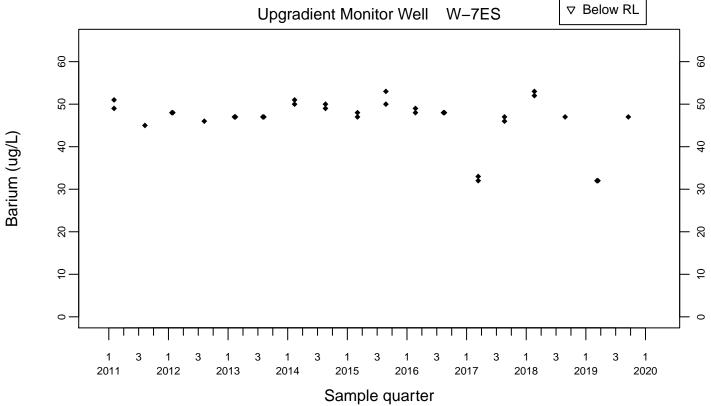


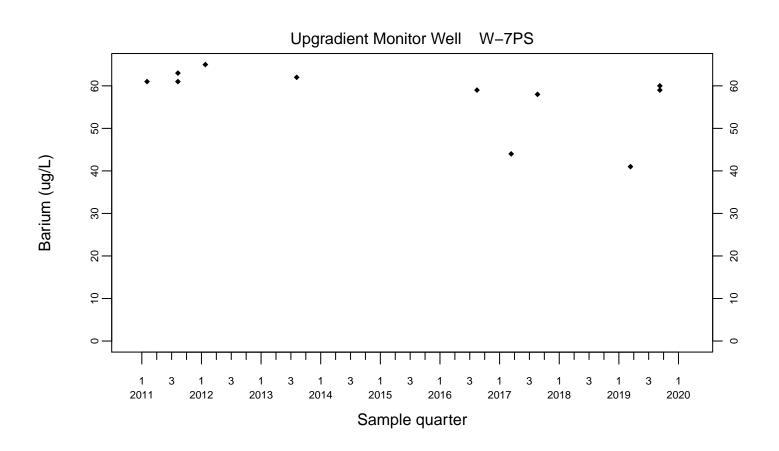
Sample quarter

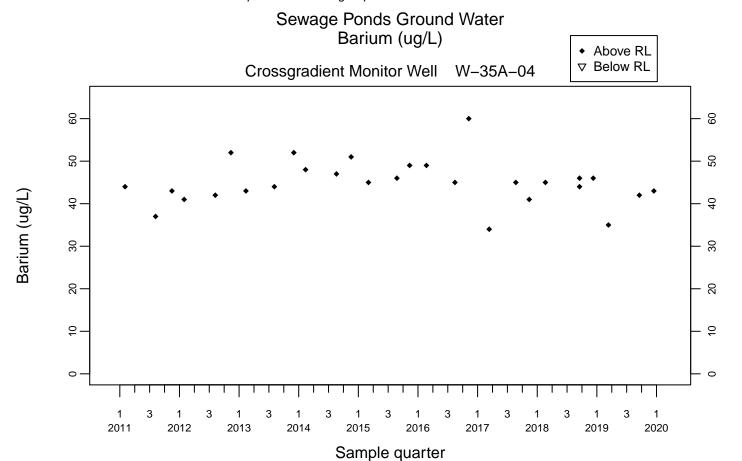
Arsenic (ug/L)

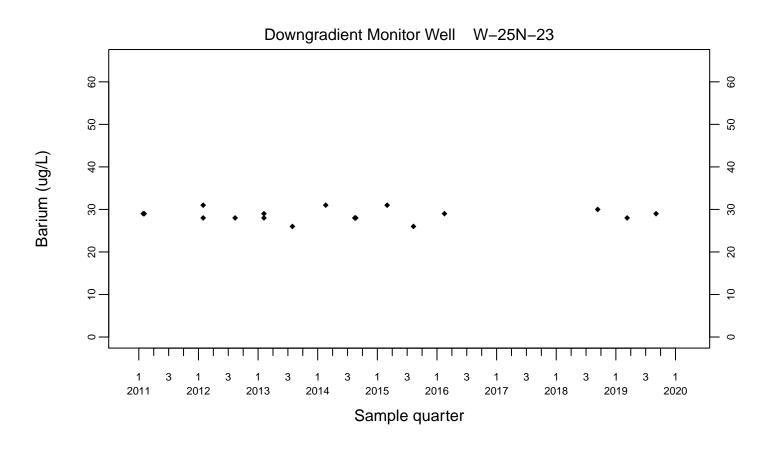


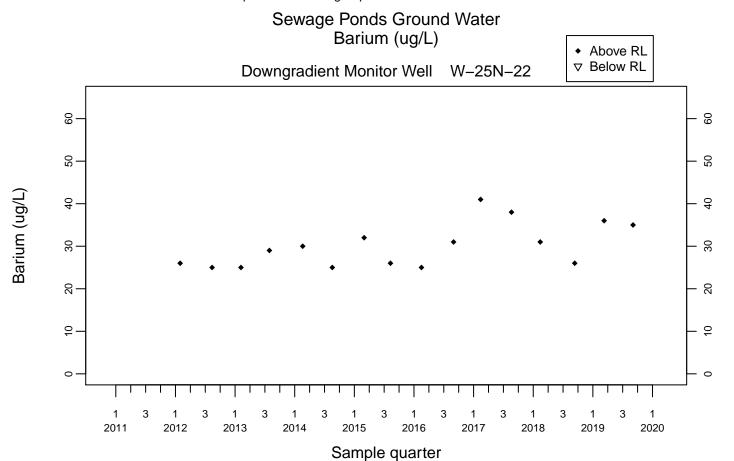


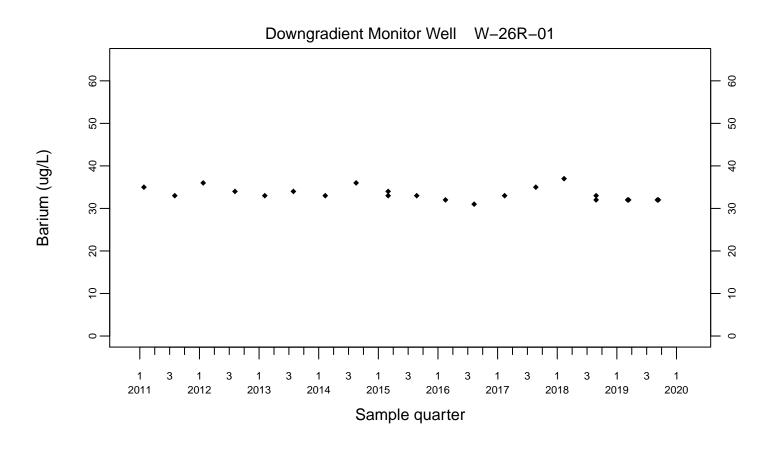


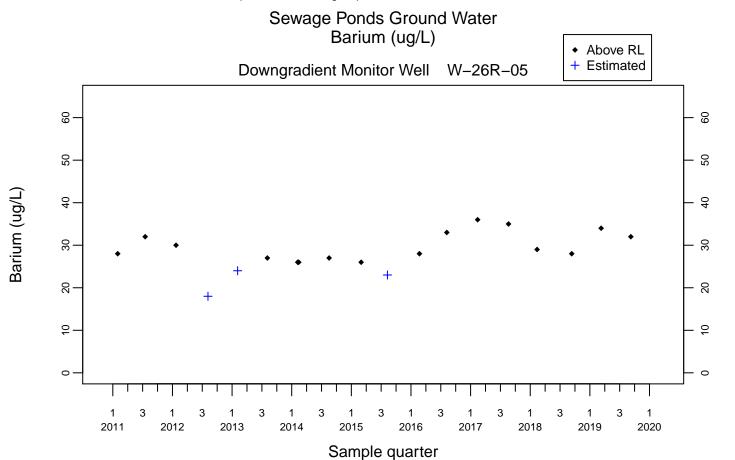


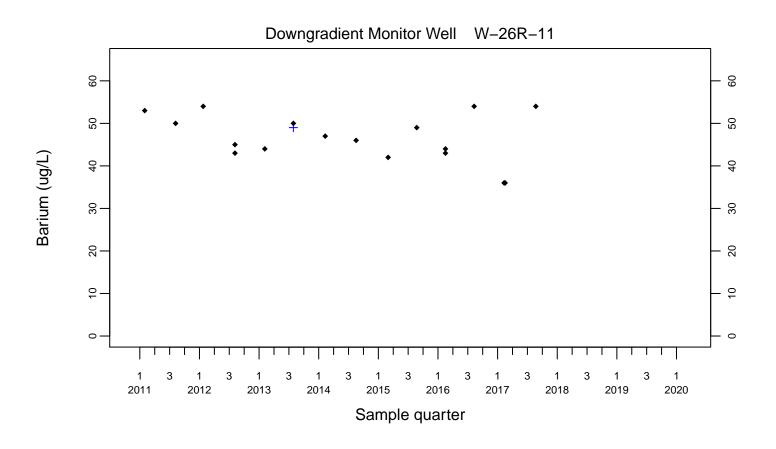


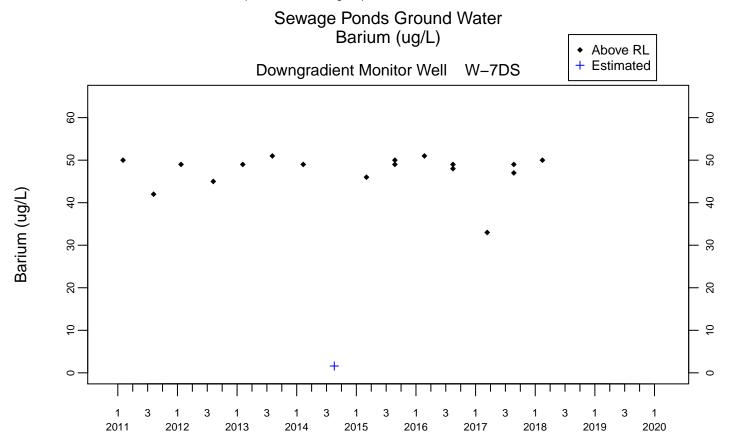


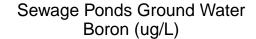




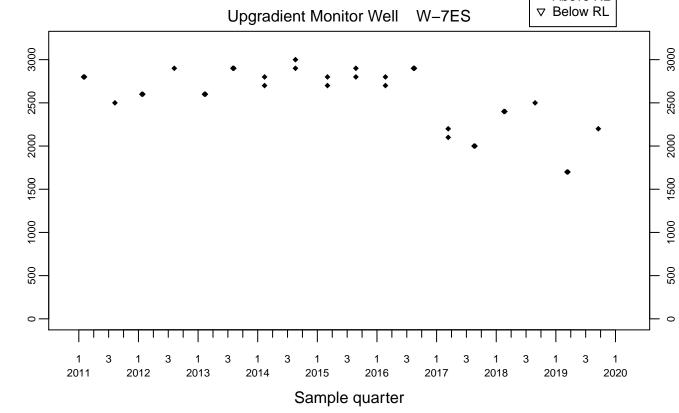




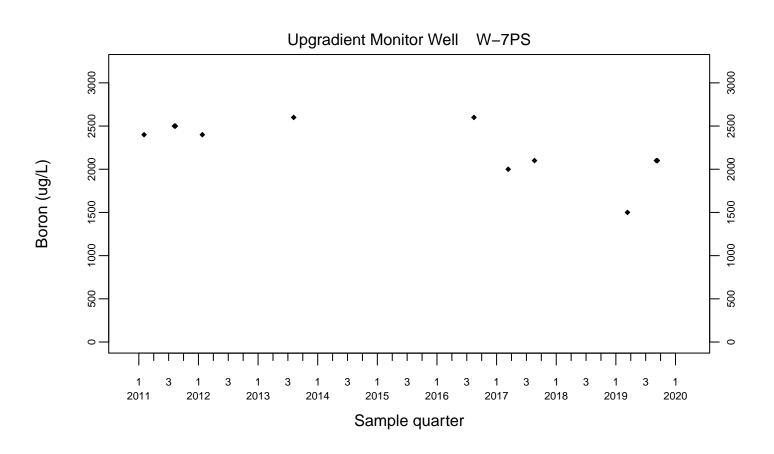


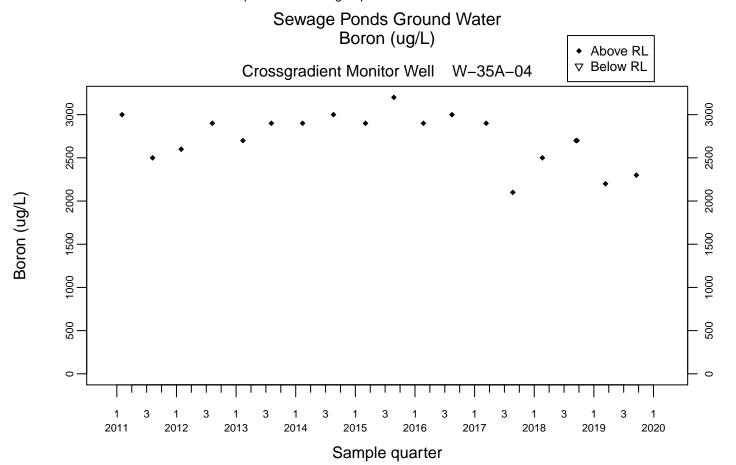


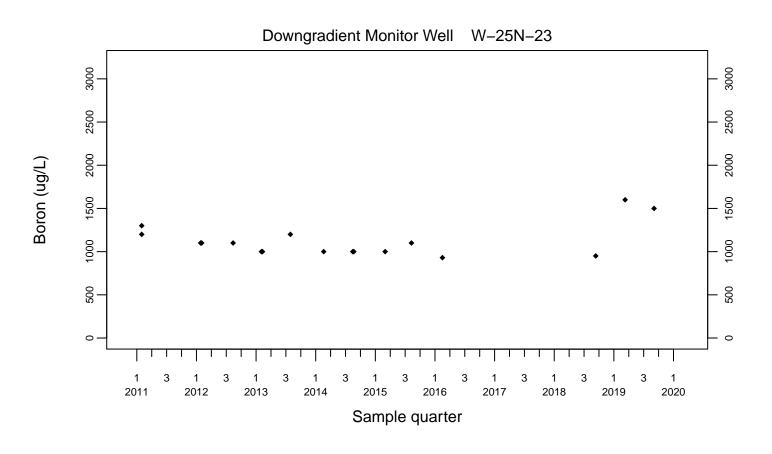


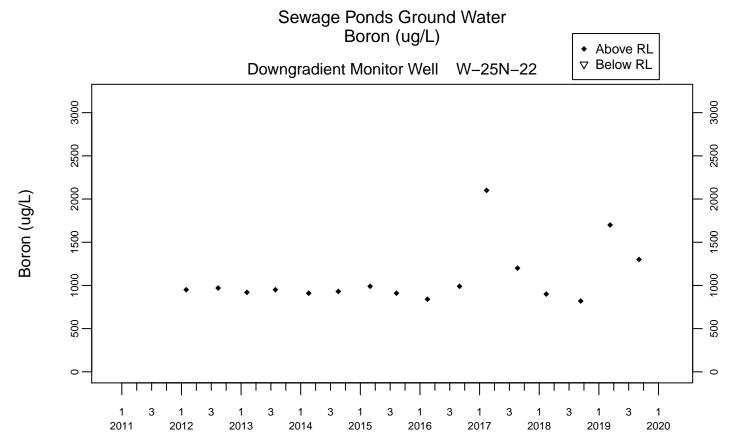


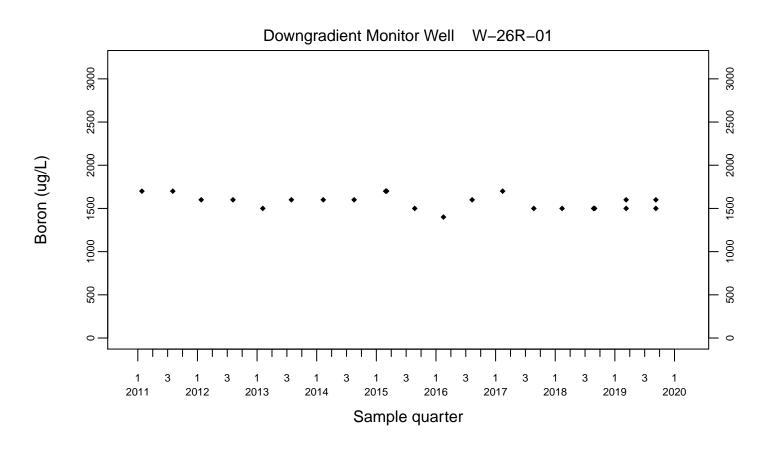
Boron (ug/L)

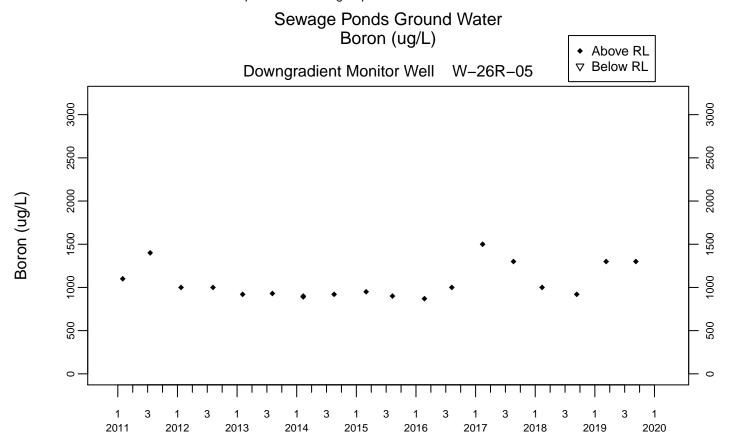


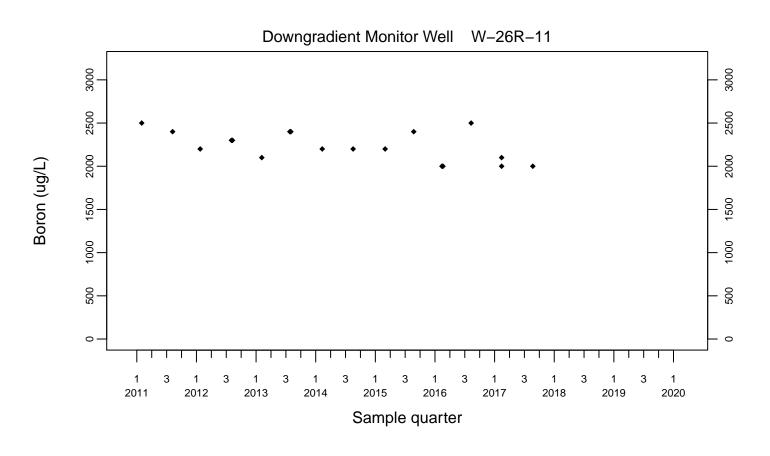


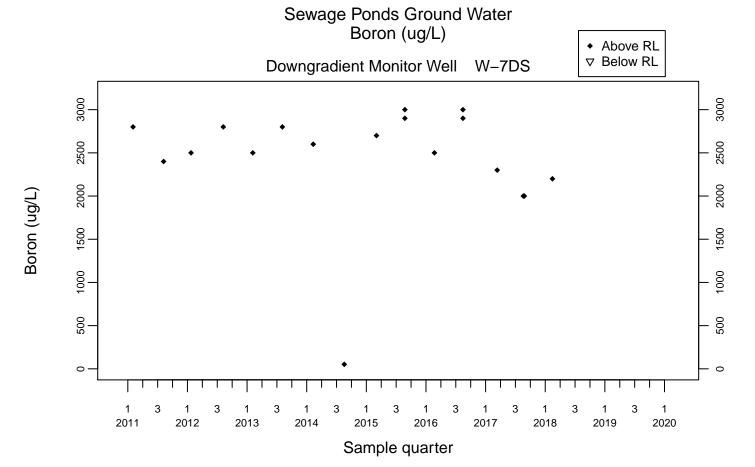


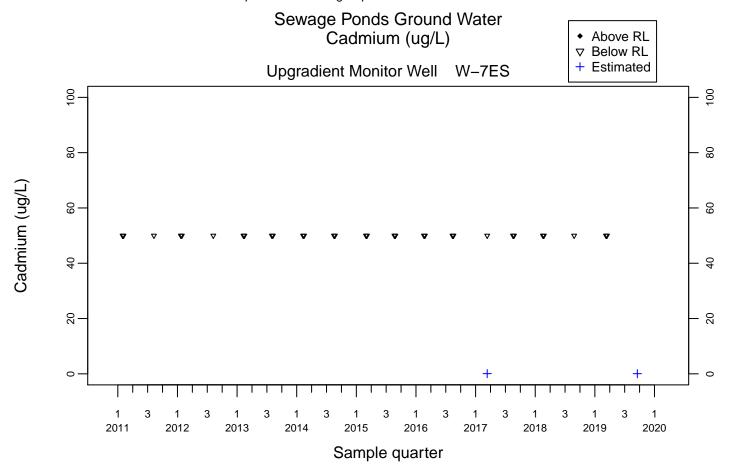


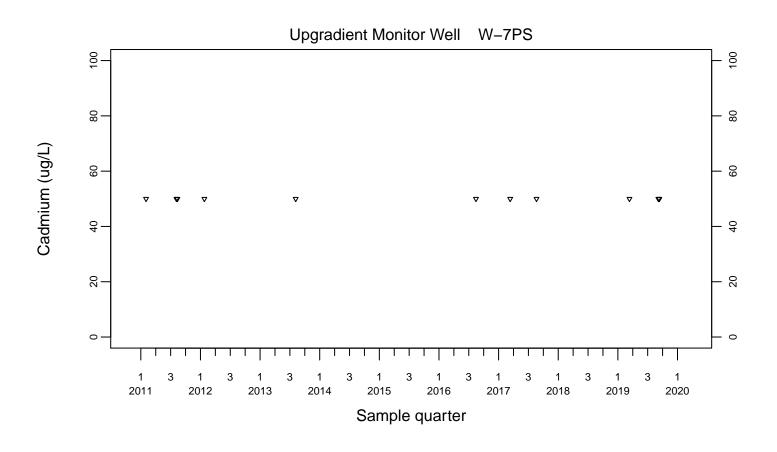


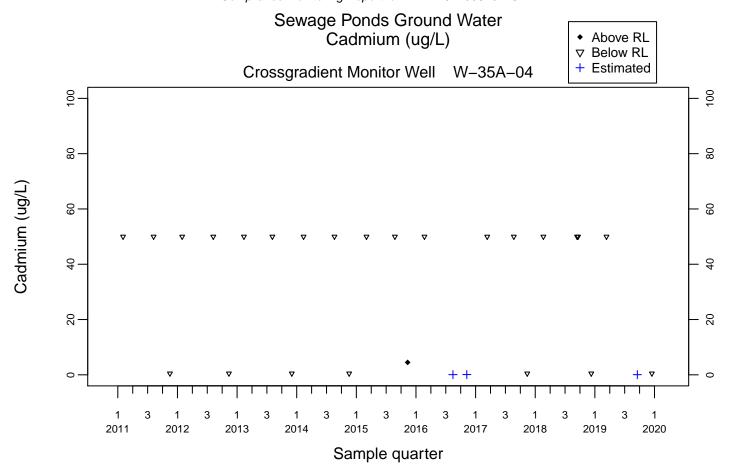


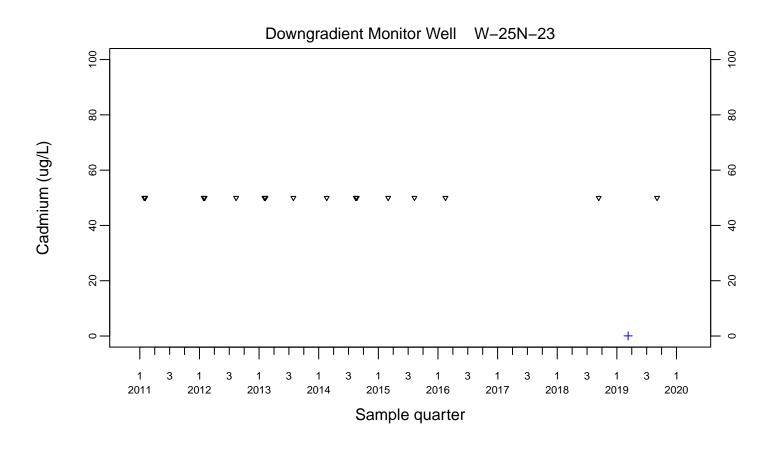


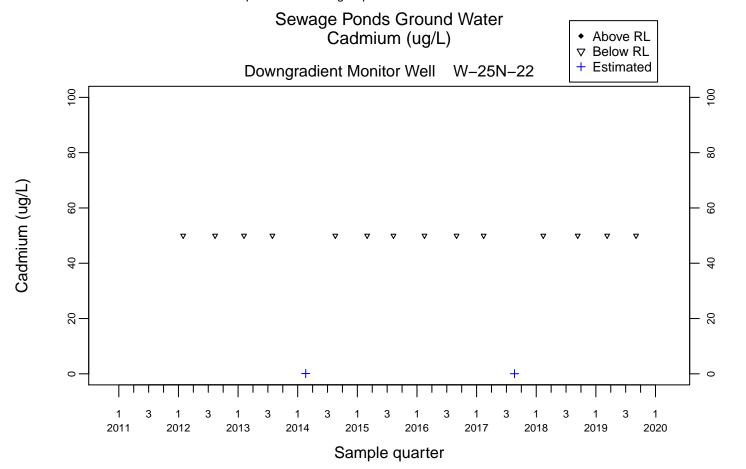


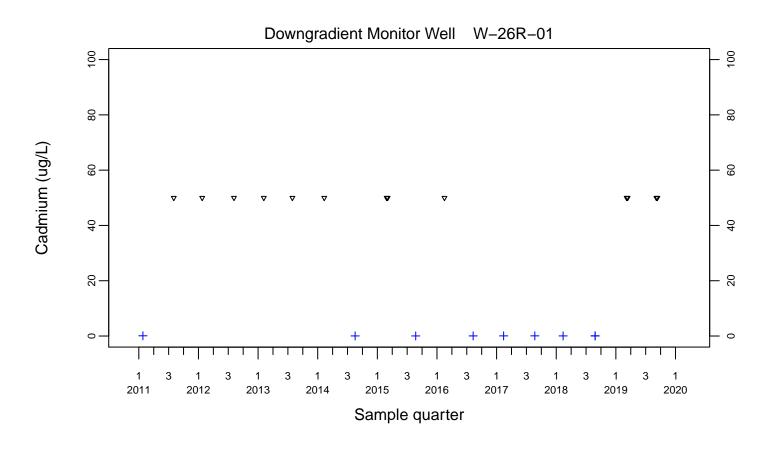




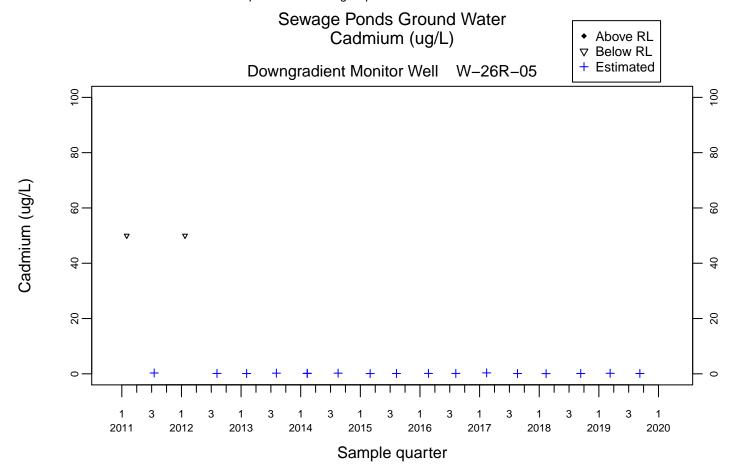


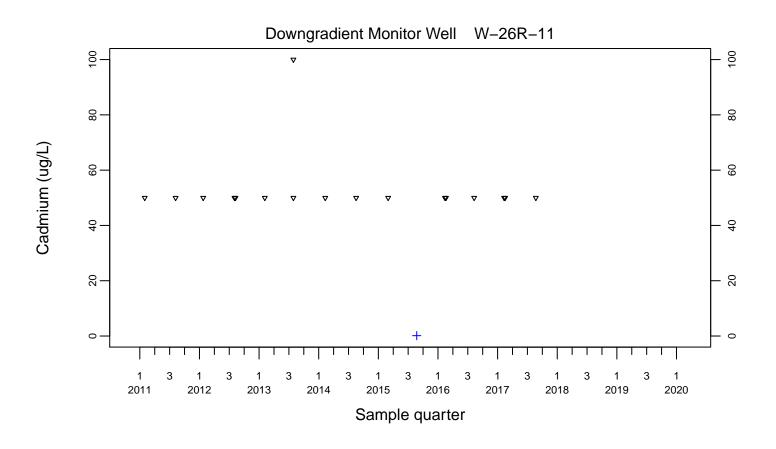


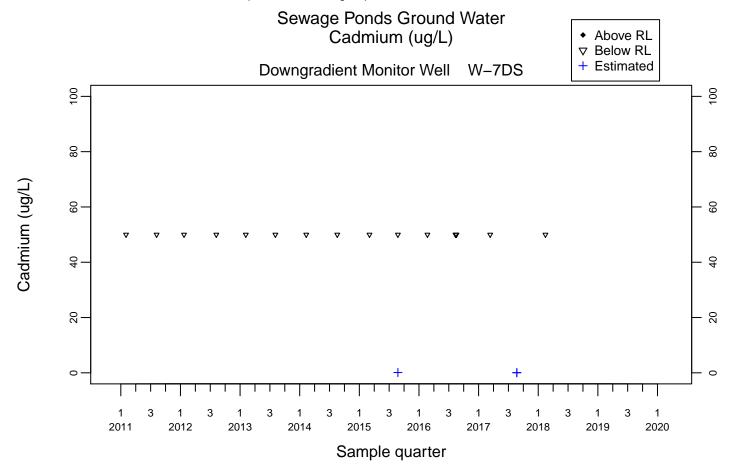




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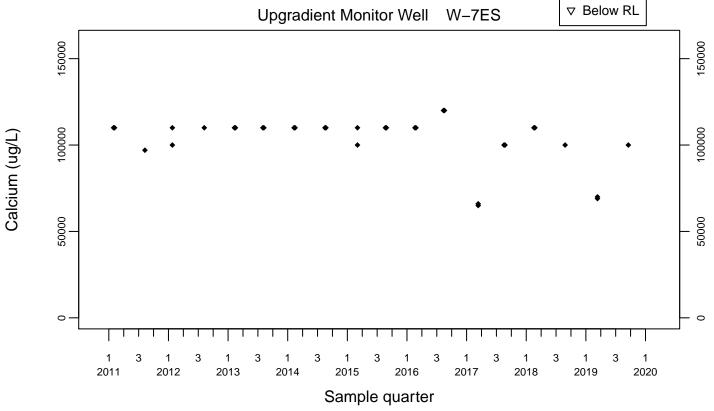


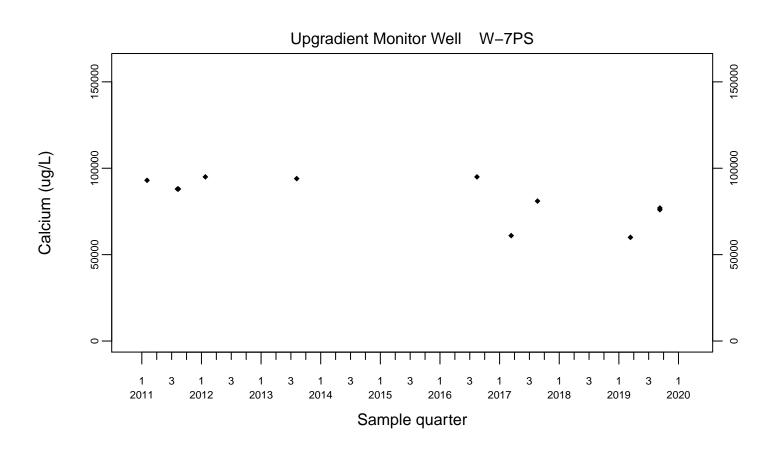




Sewage Ponds Ground Water Calcium (ug/L)



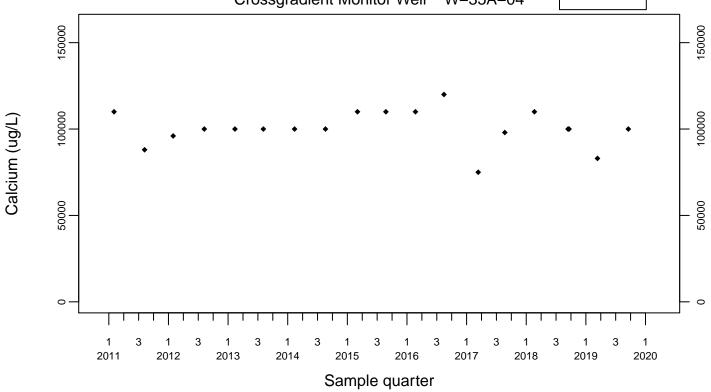


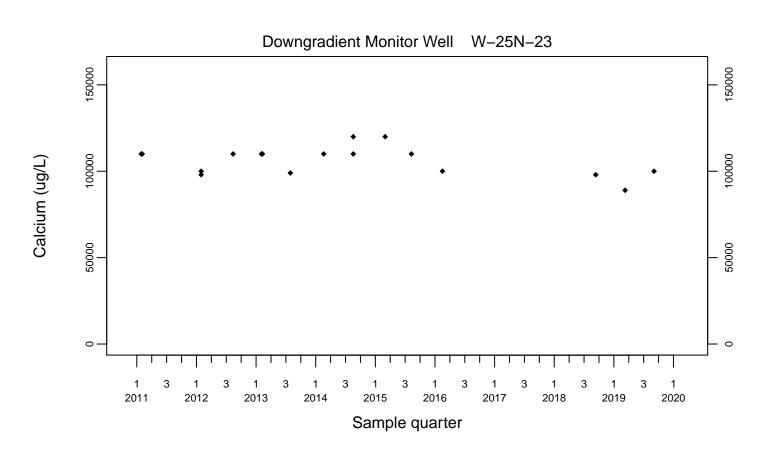


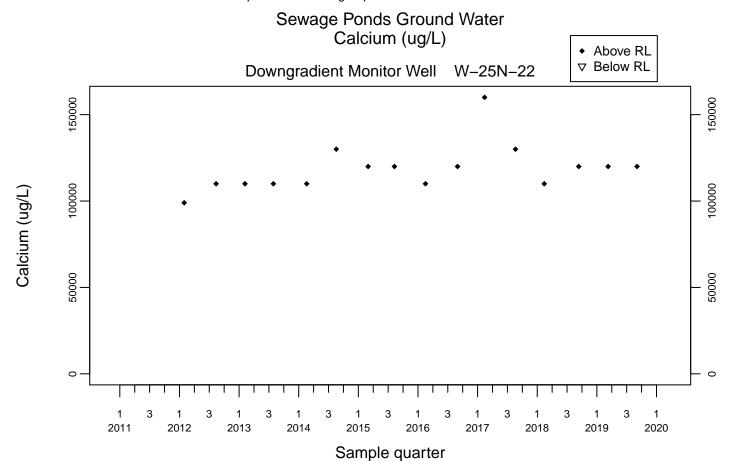
Sewage Ponds Ground Water Calcium (ug/L)

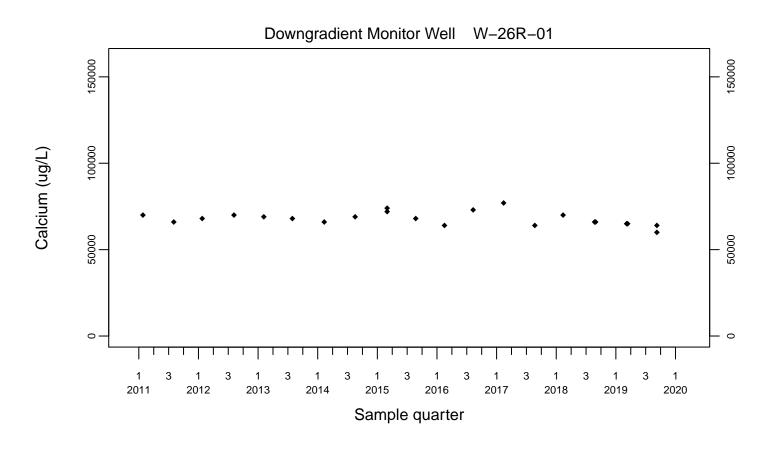


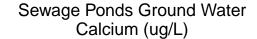
Above RLBelow RL

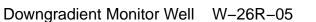




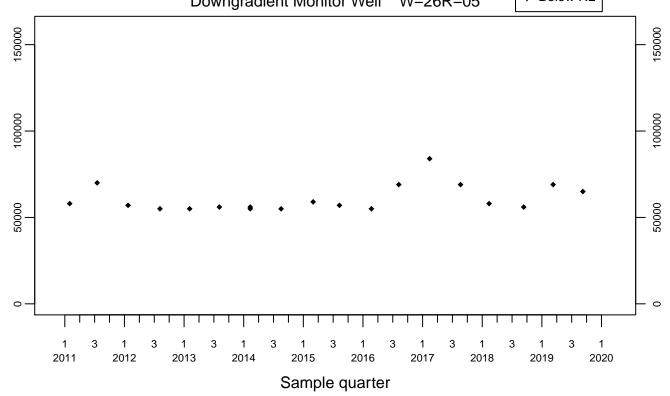




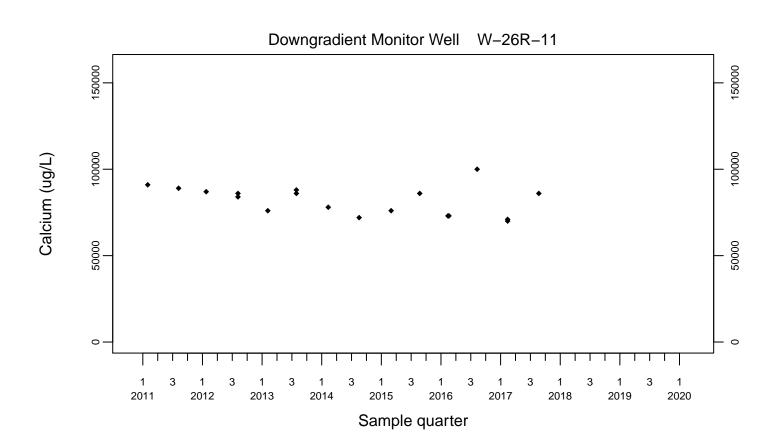


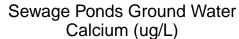


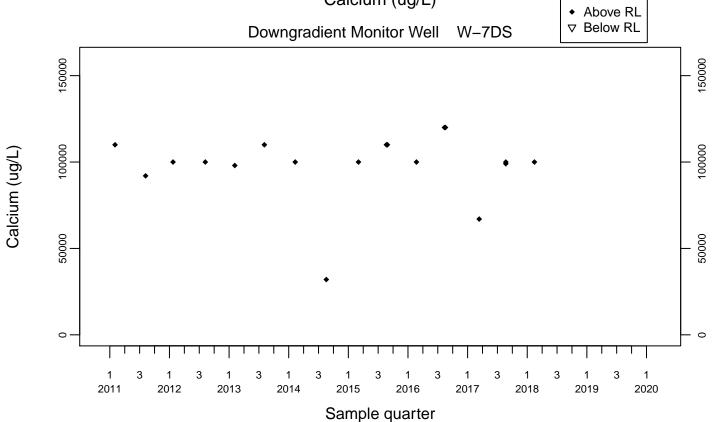


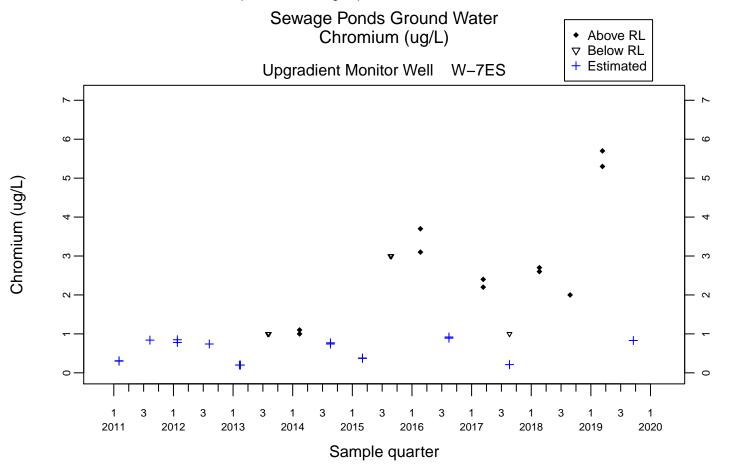


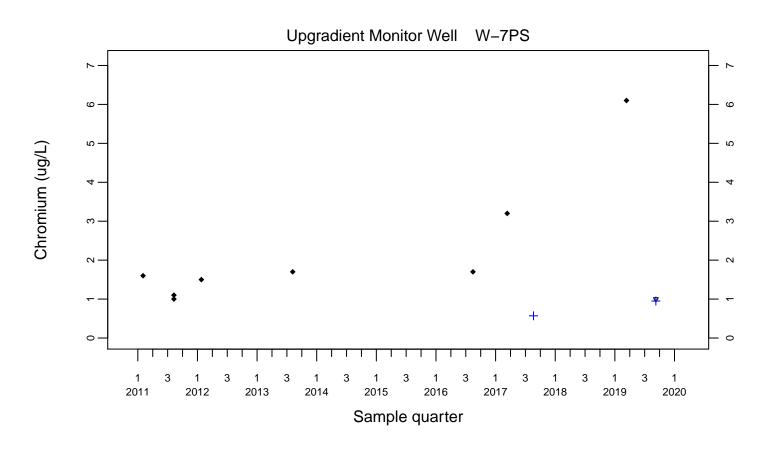
Calcium (ug/L)

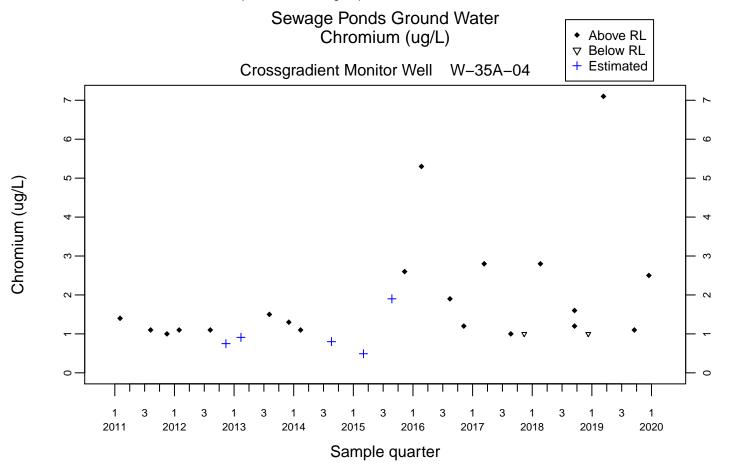


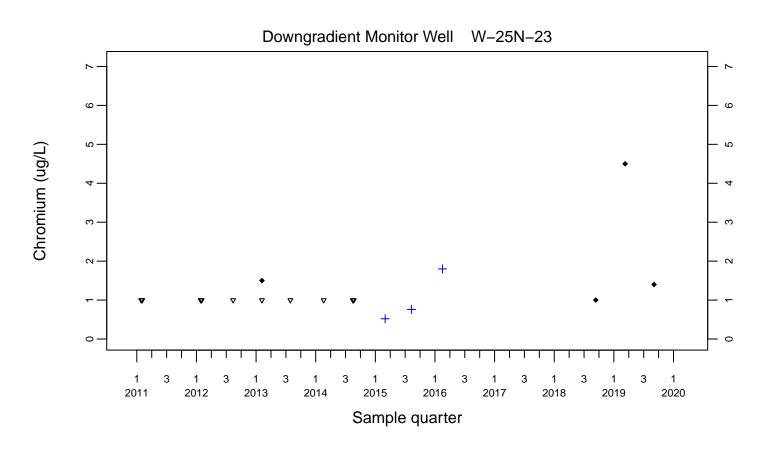


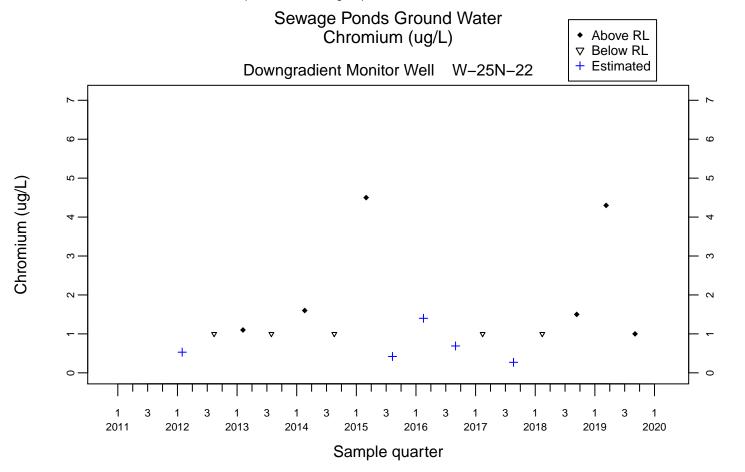


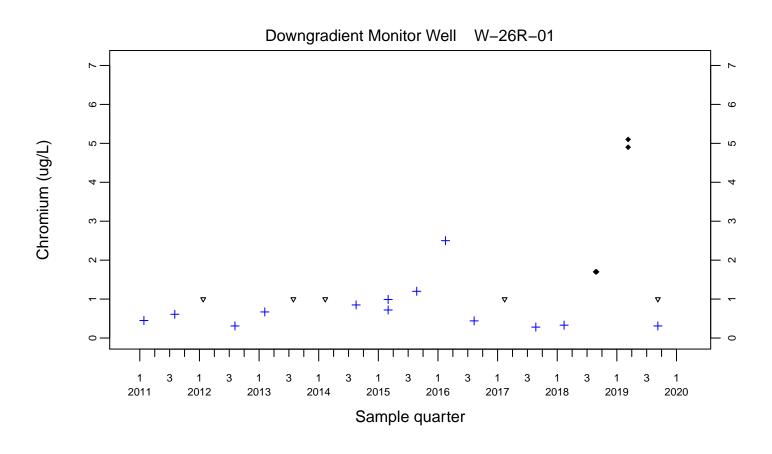


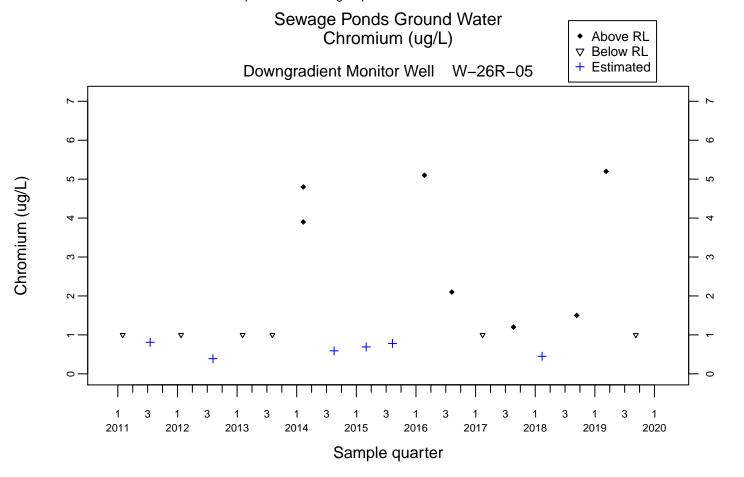


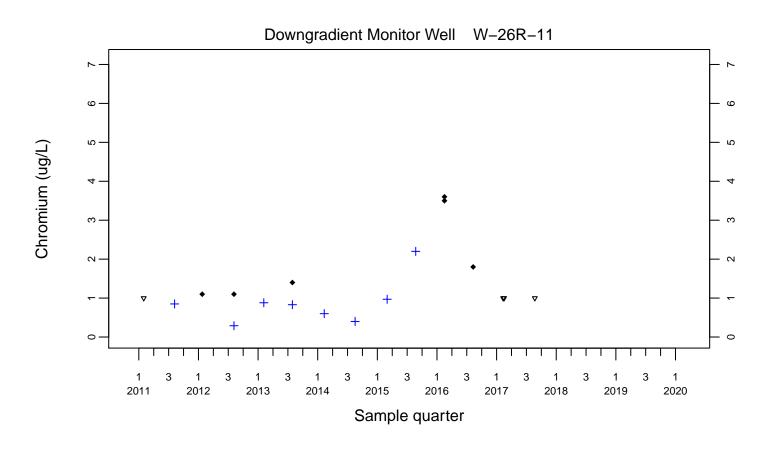


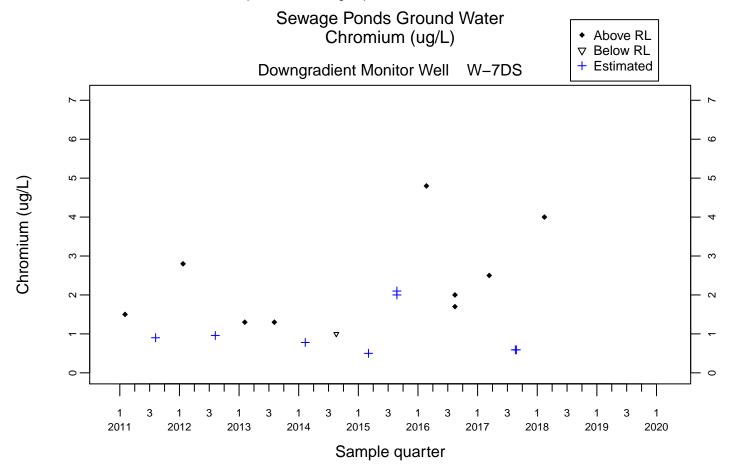


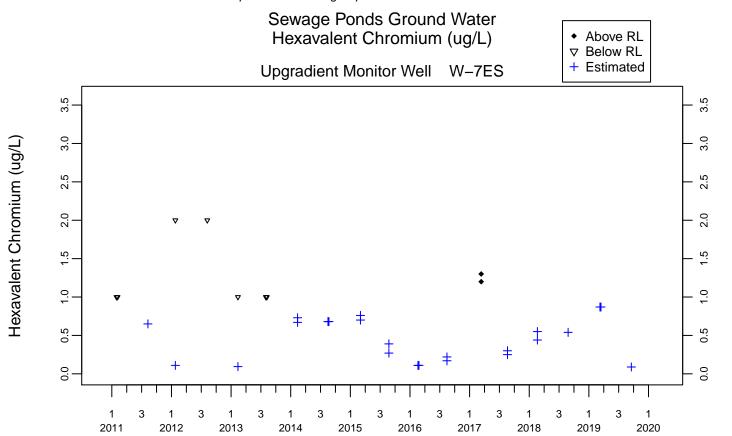


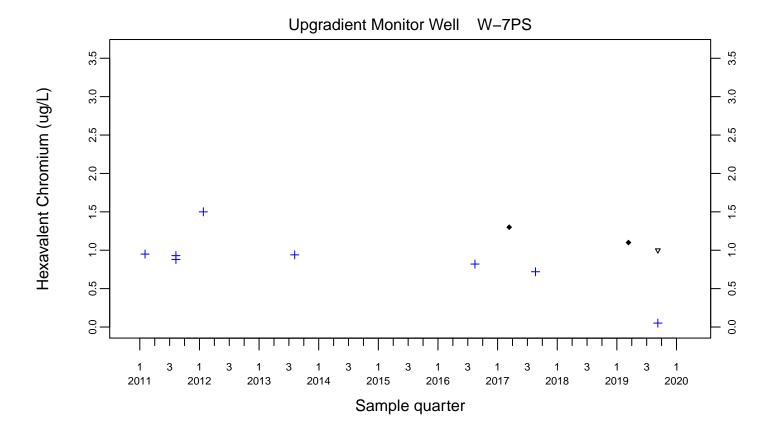


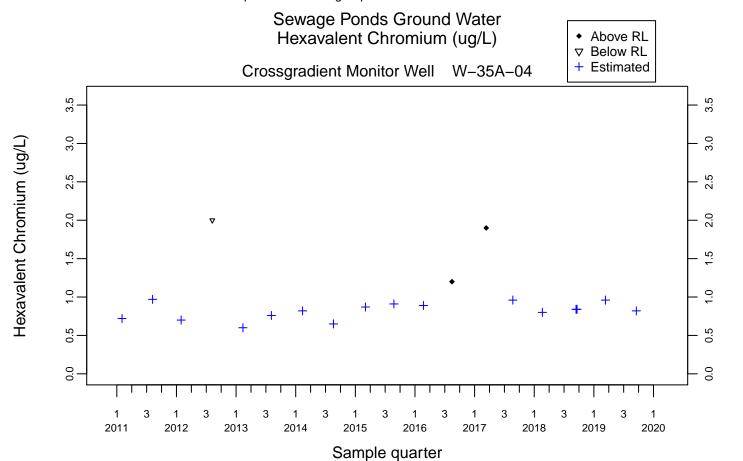


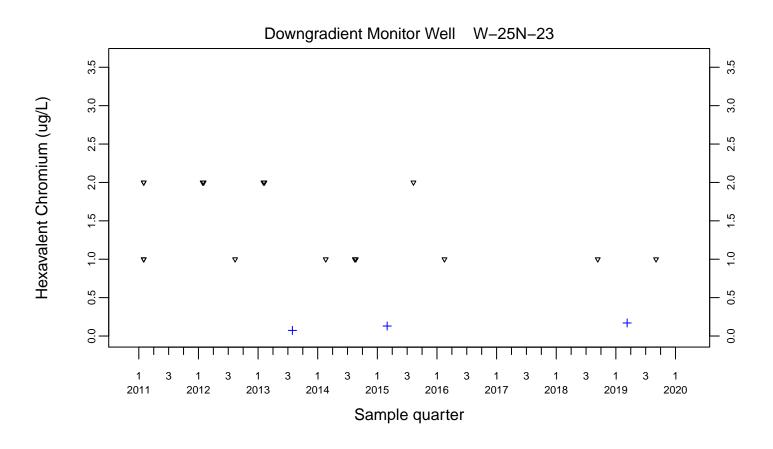


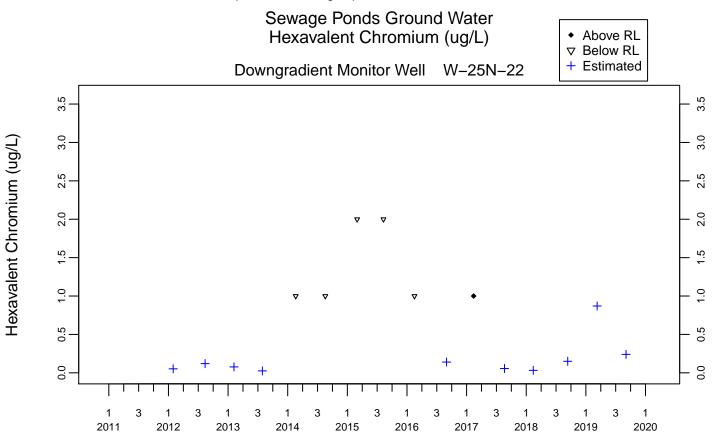




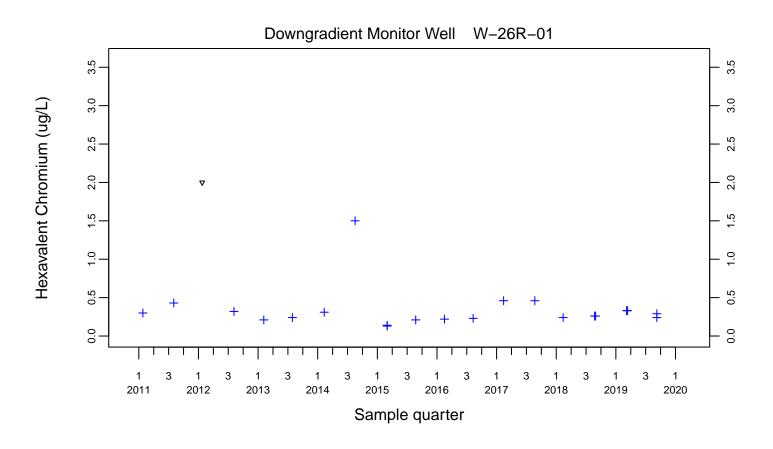


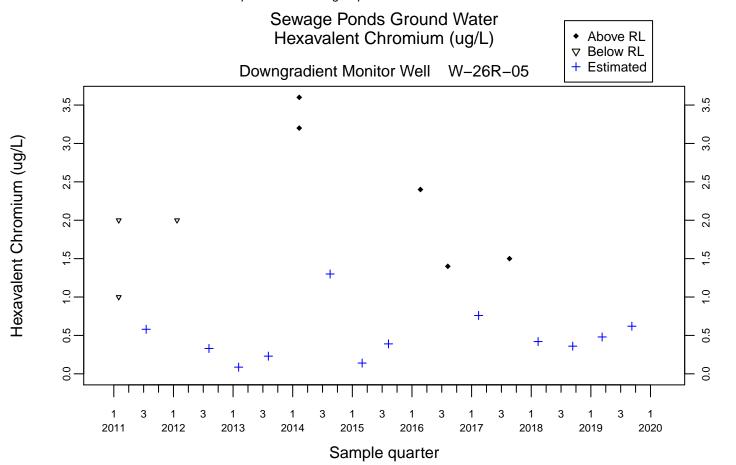


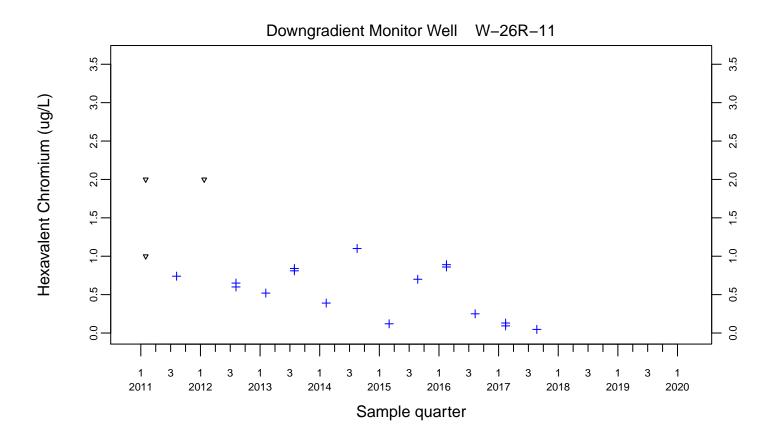


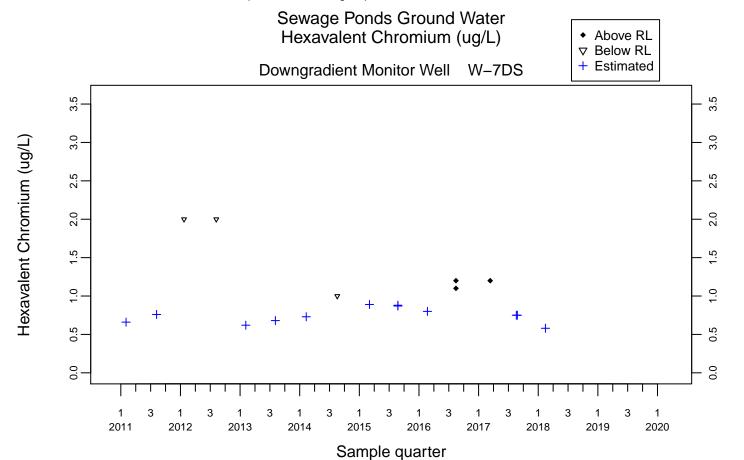


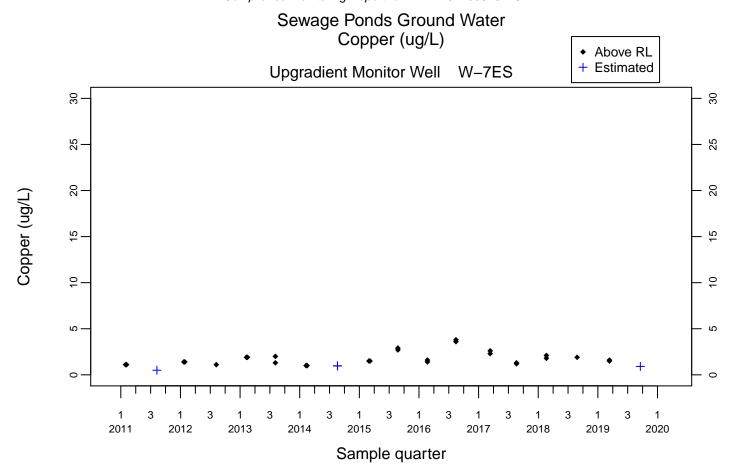
Sample quarter

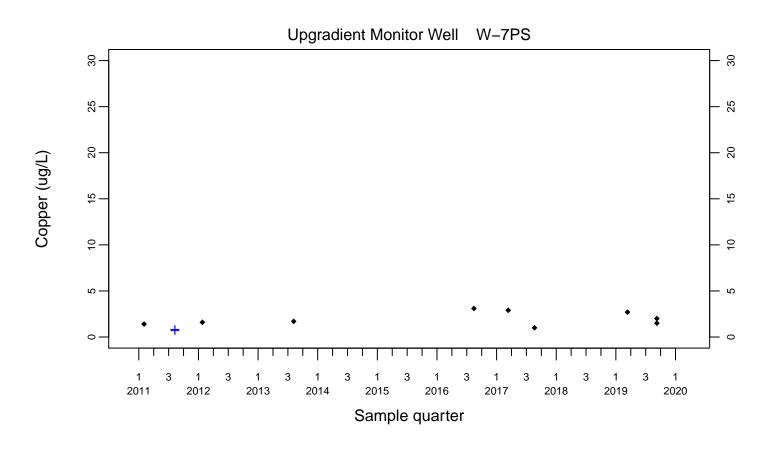


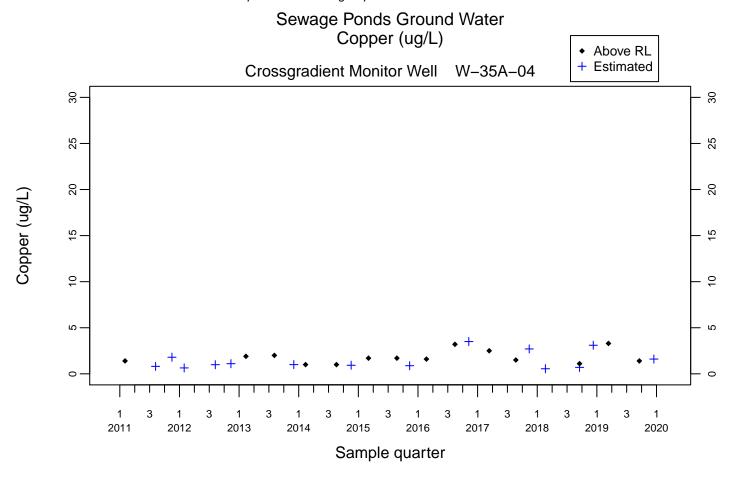


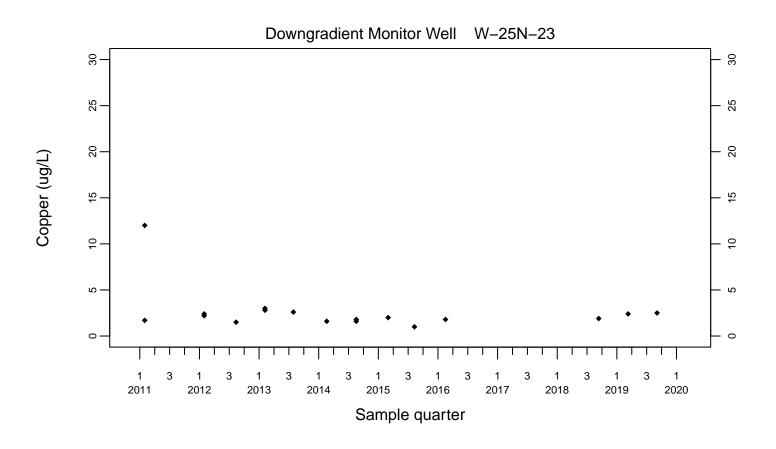


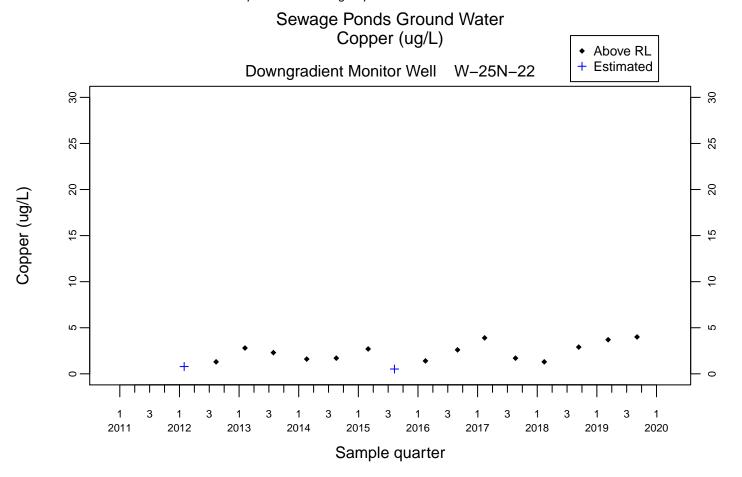


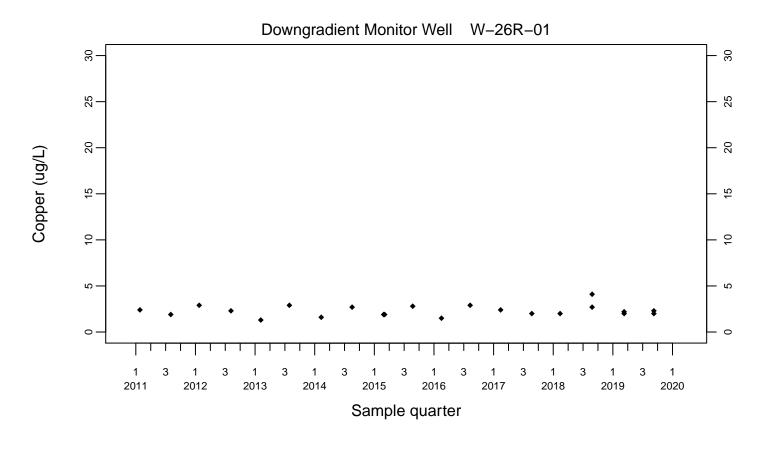


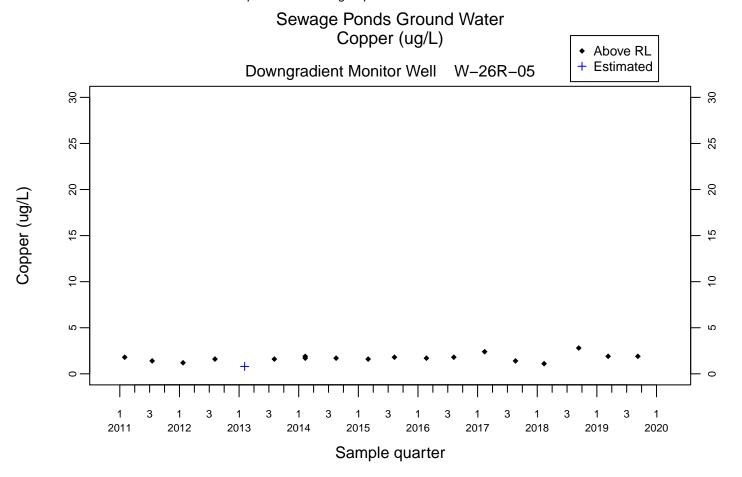


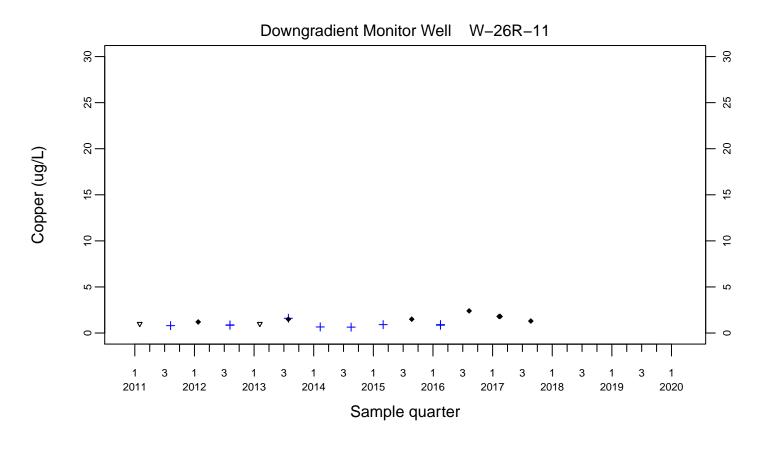


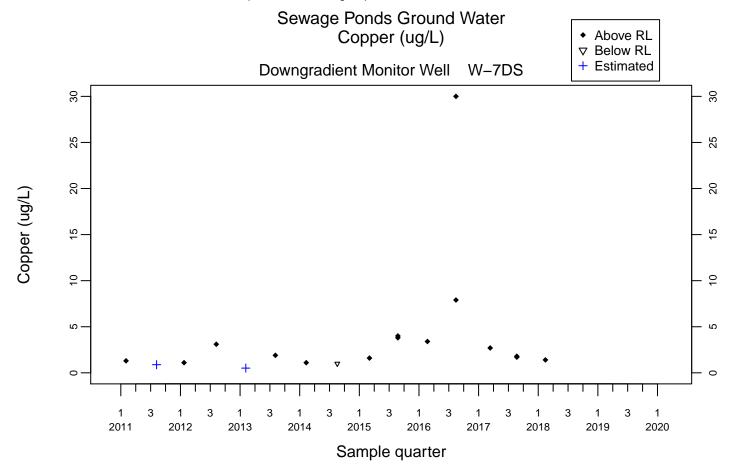


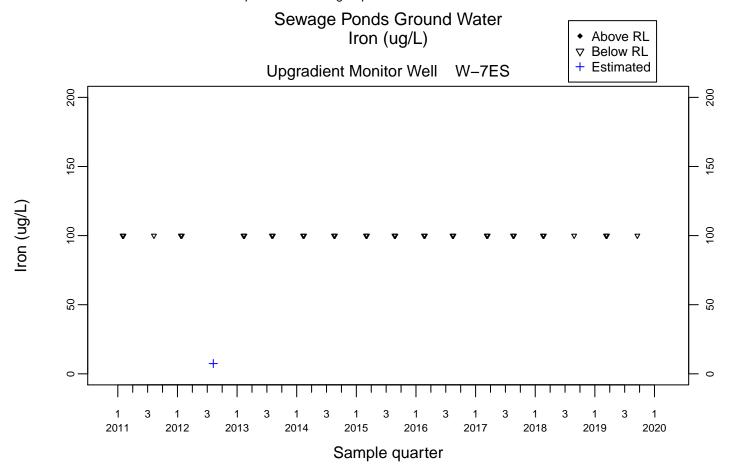


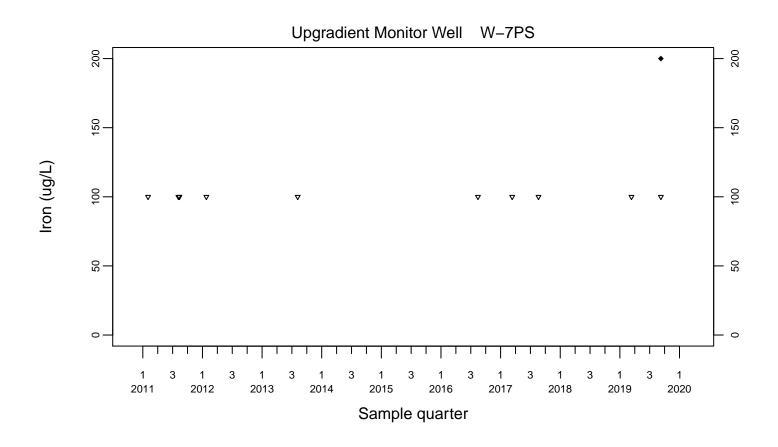


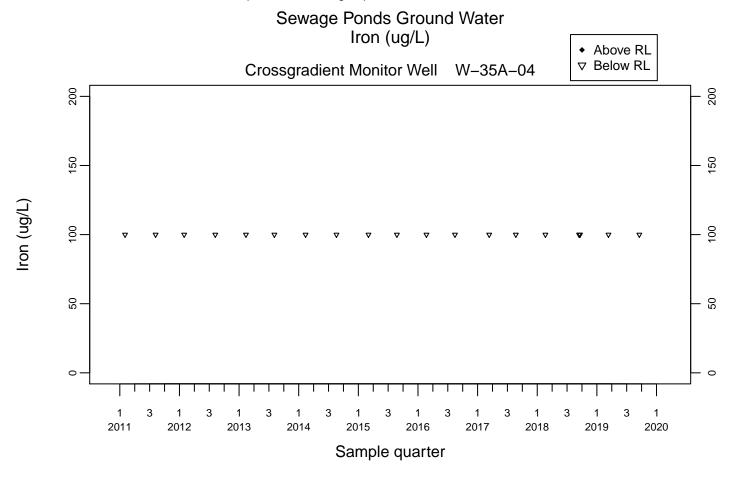


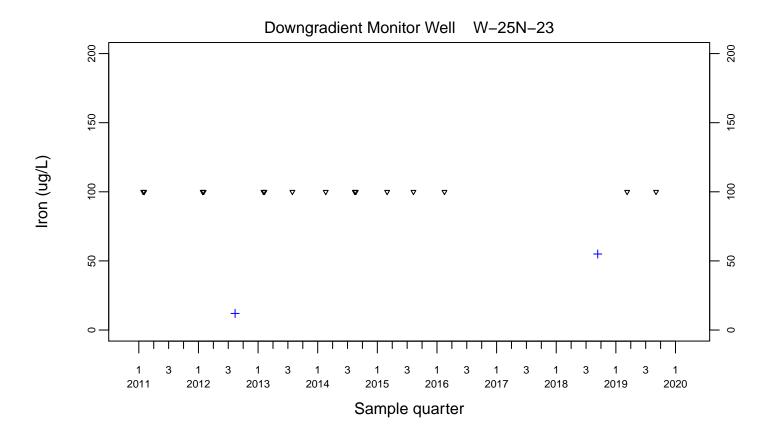


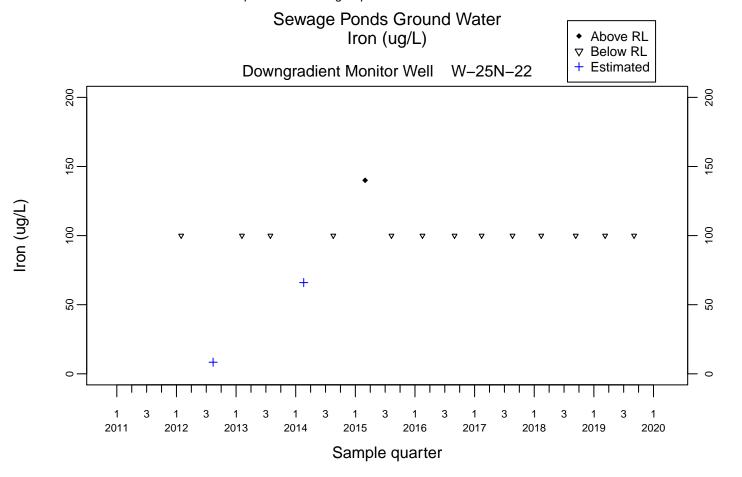


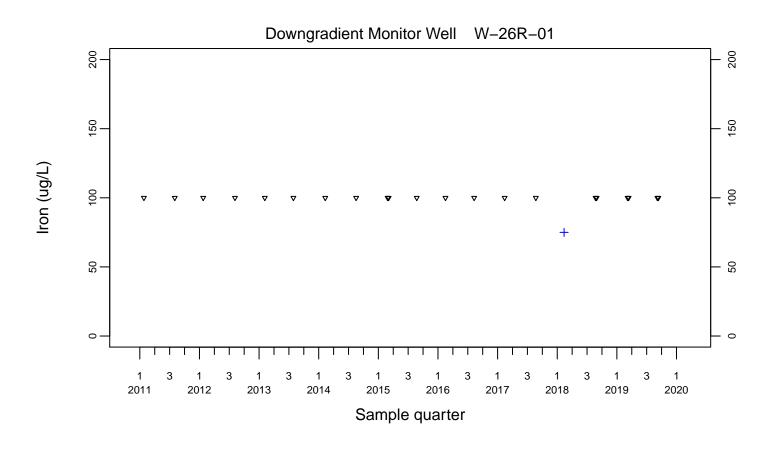


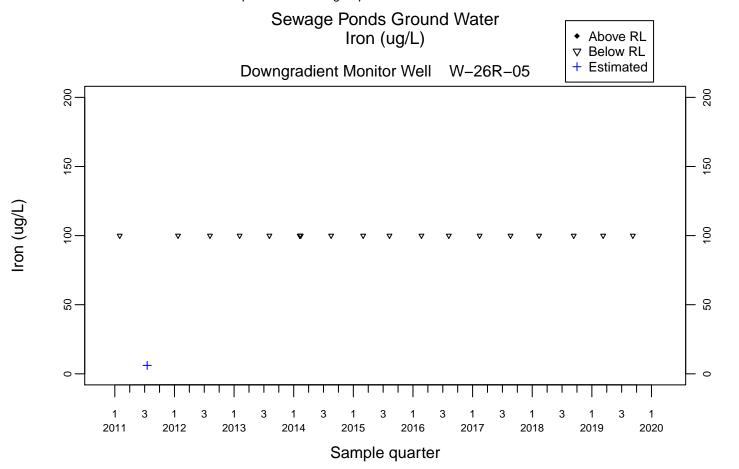


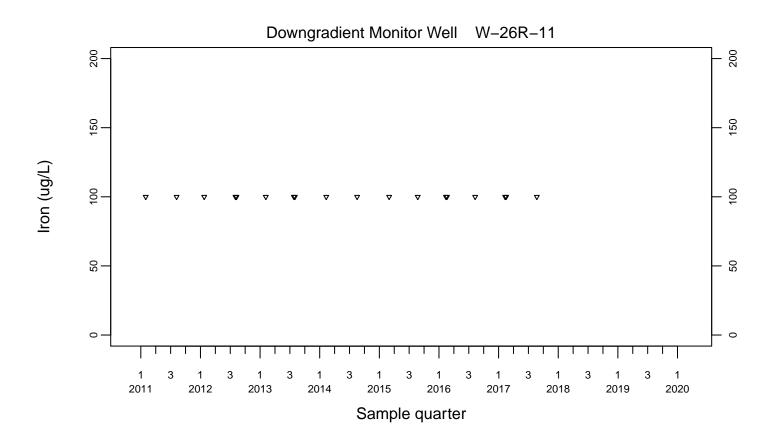


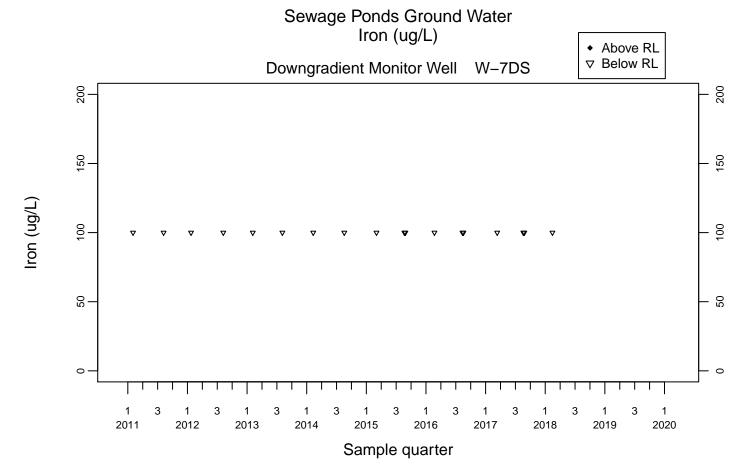


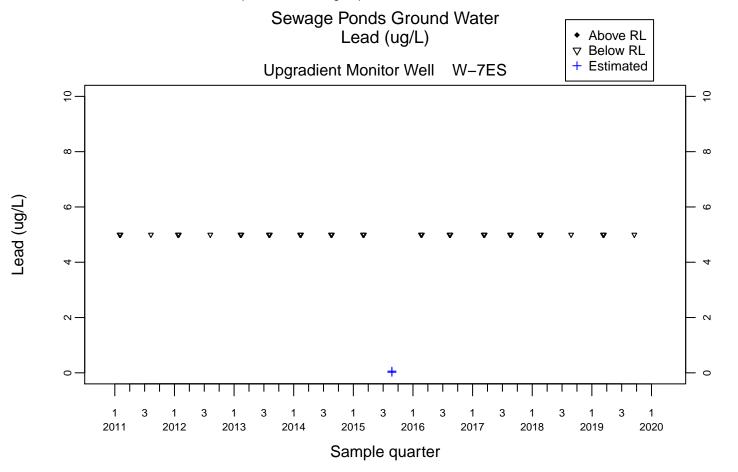


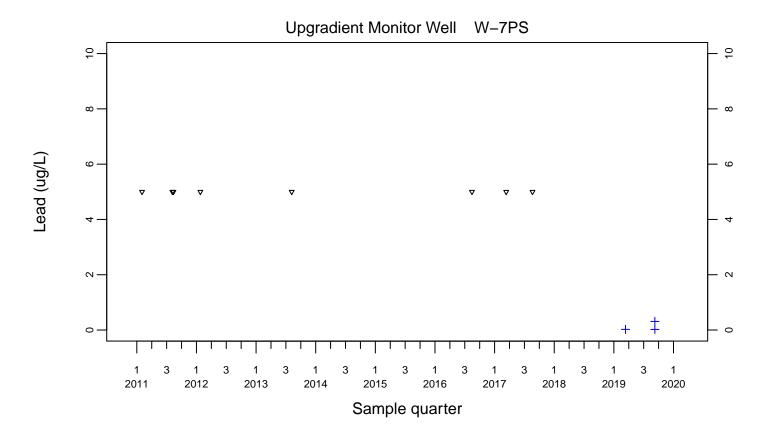


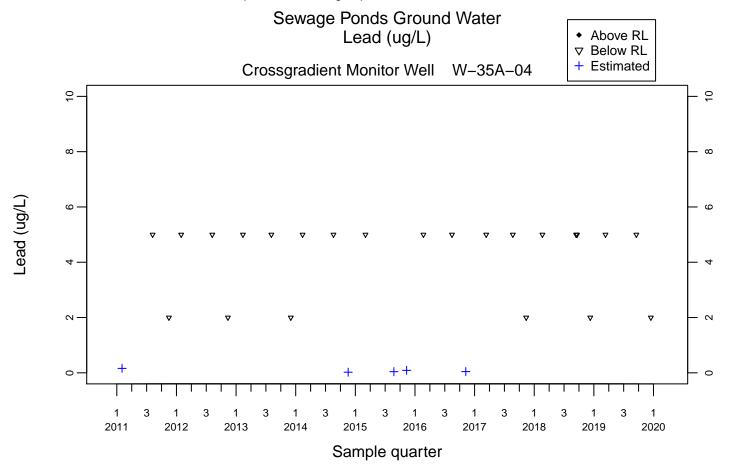


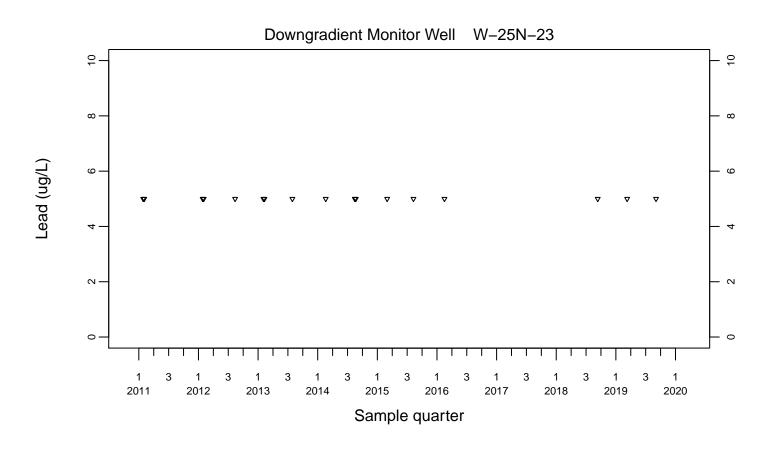


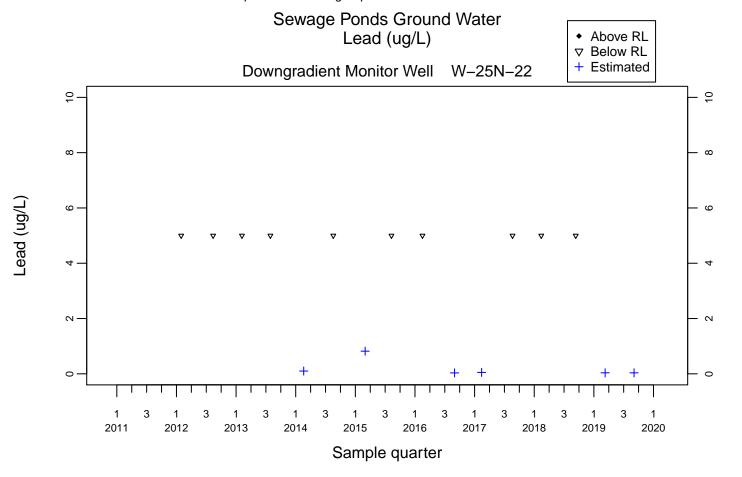


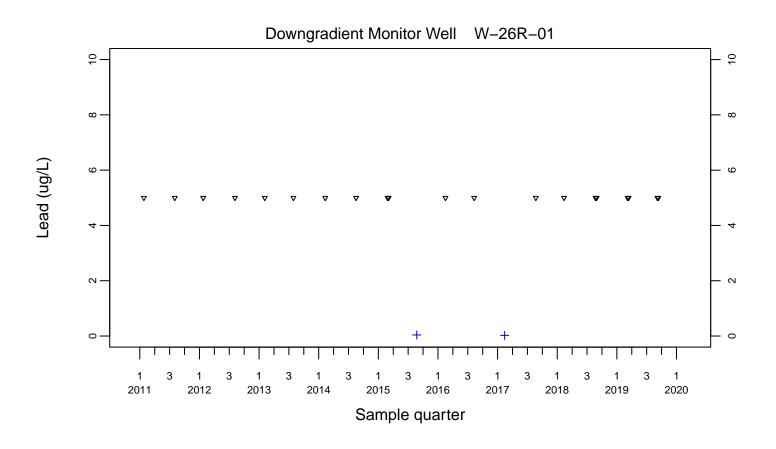


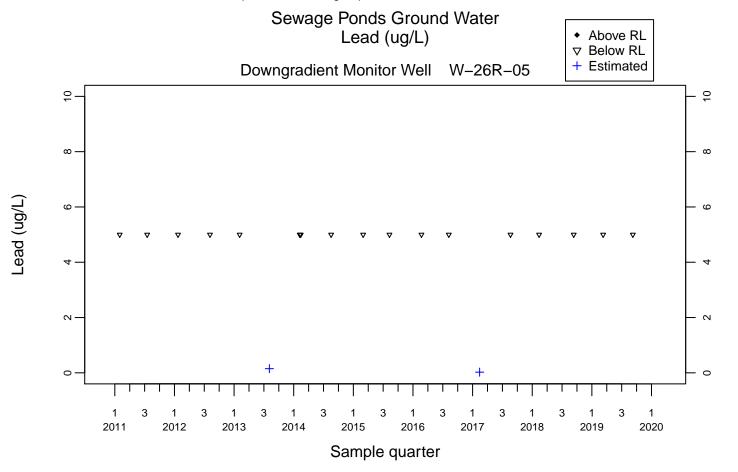


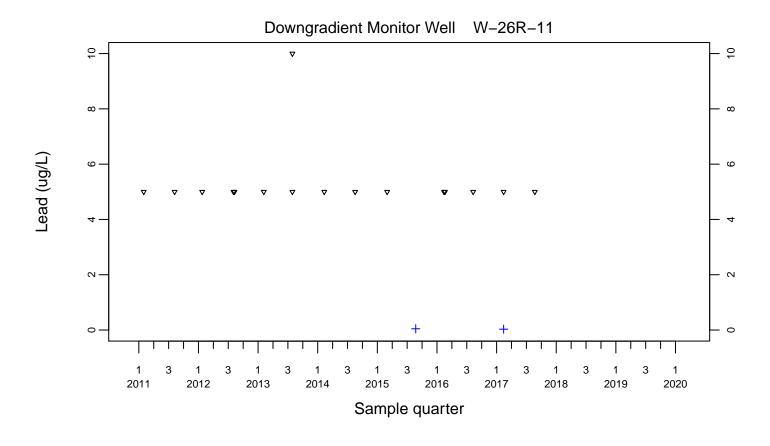


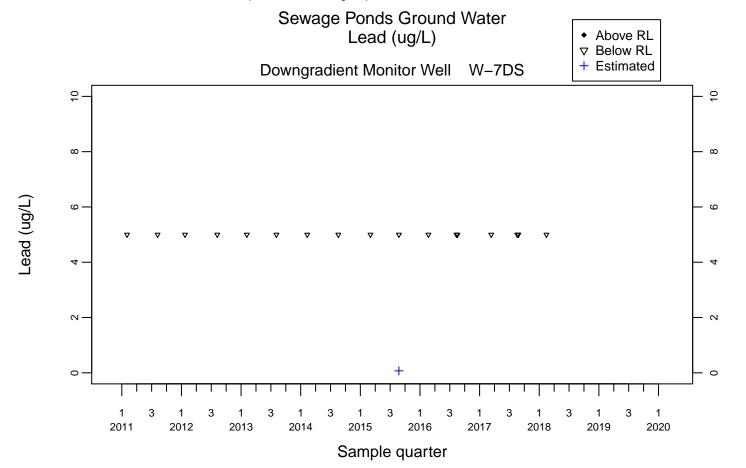


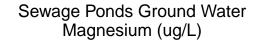




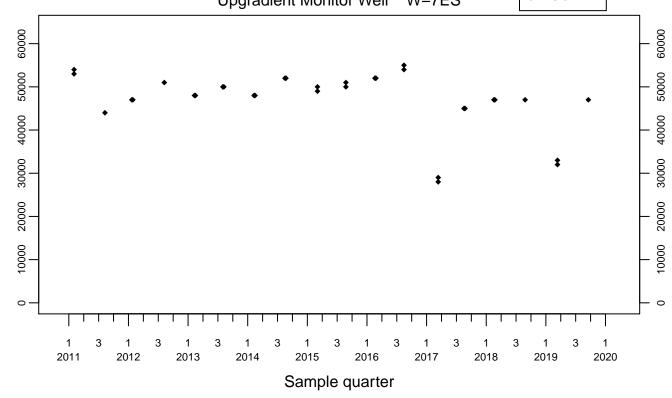




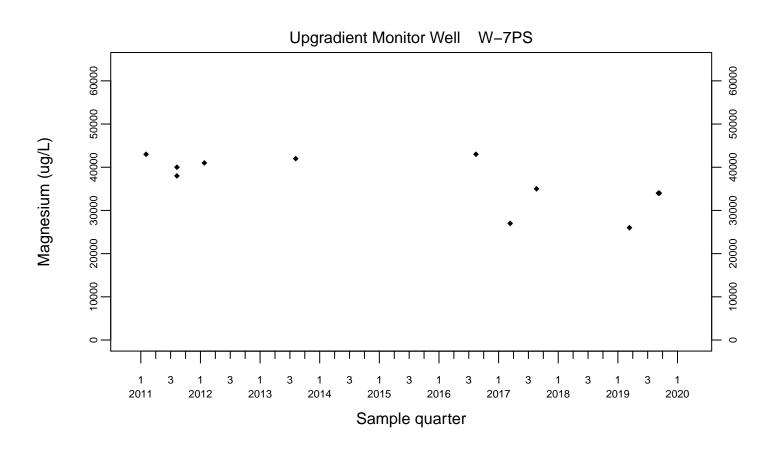


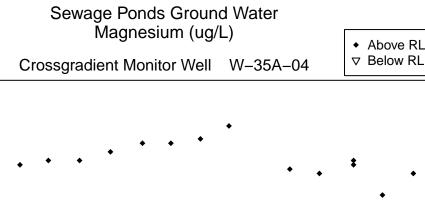


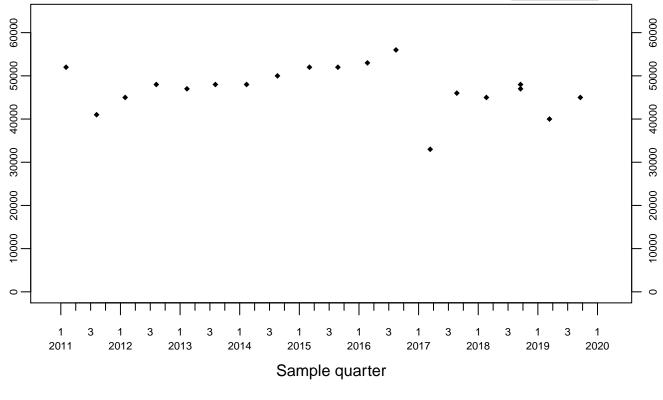




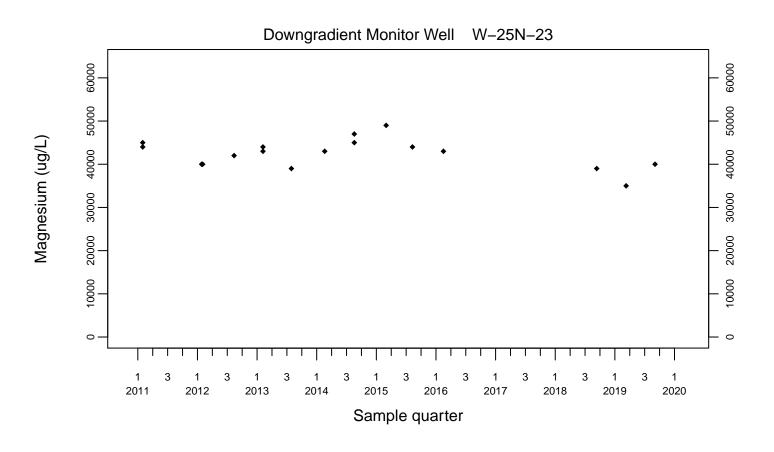
Magnesium (ug/L)

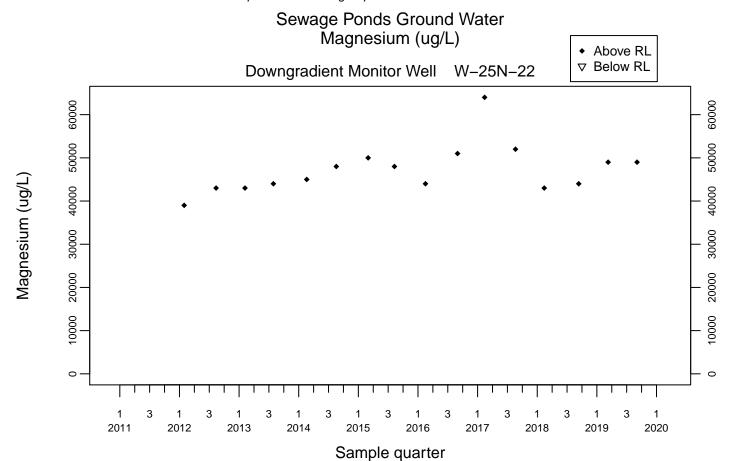


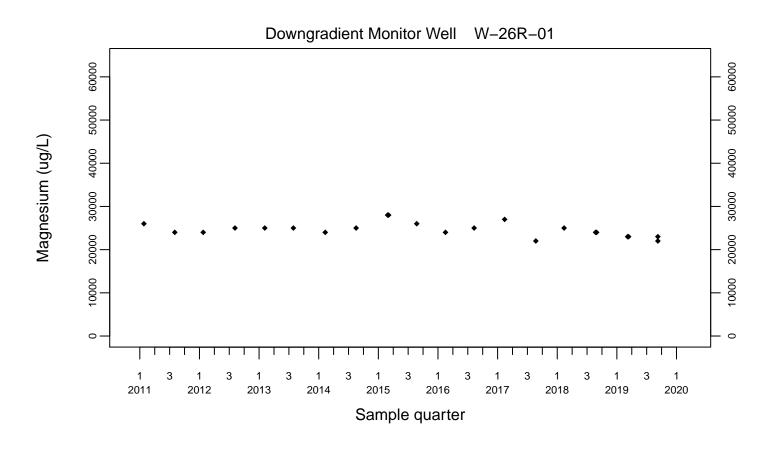




Magnesium (ug/L)

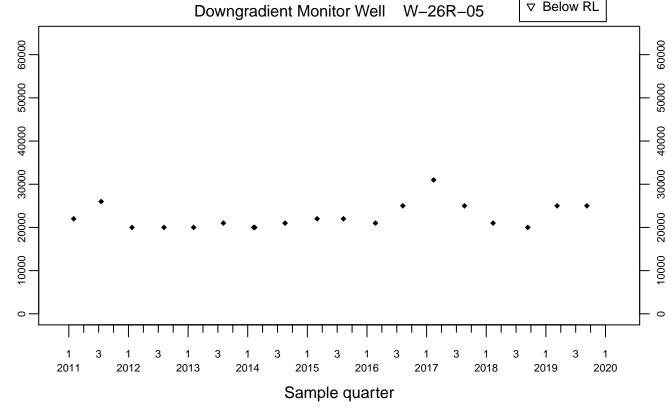




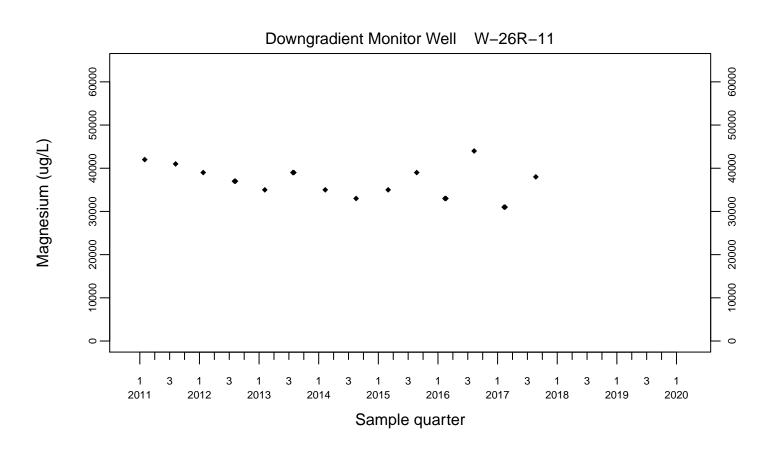


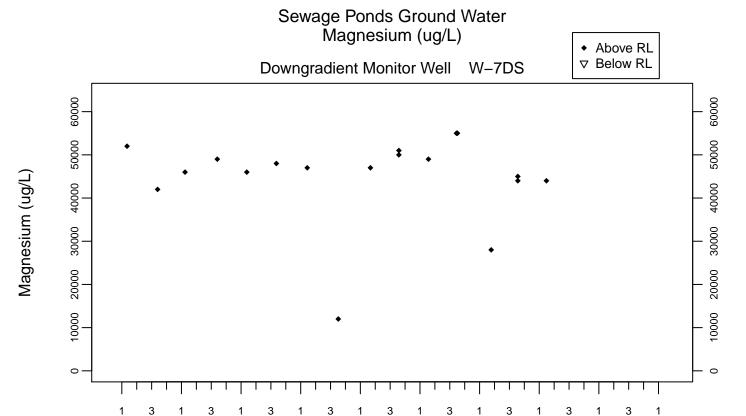






Magnesium (ug/L)



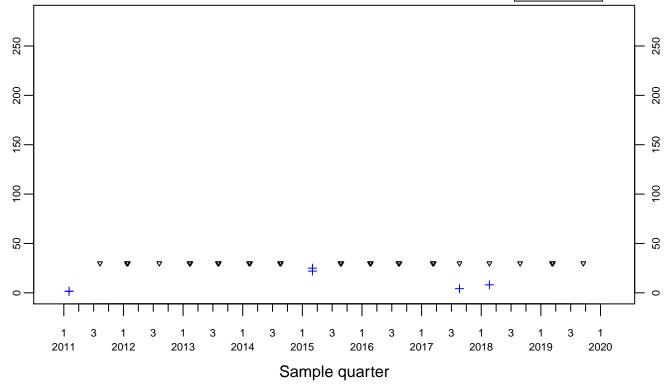


Sample quarter

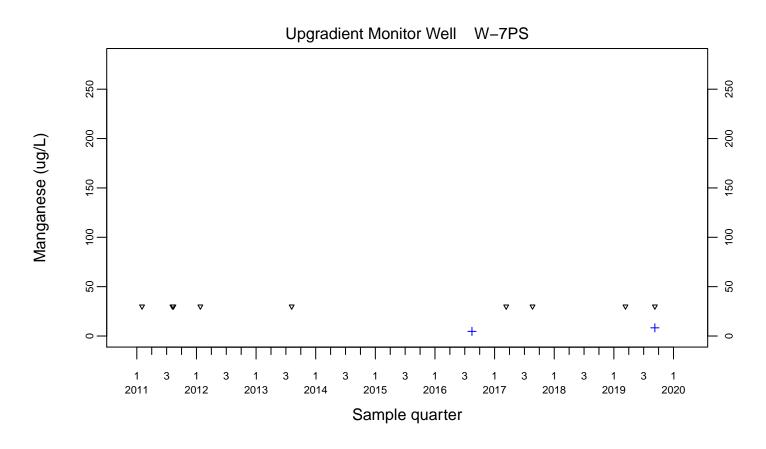


◆ Above RL▽ Below RL+ Estimated

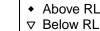




Manganese (ug/L)



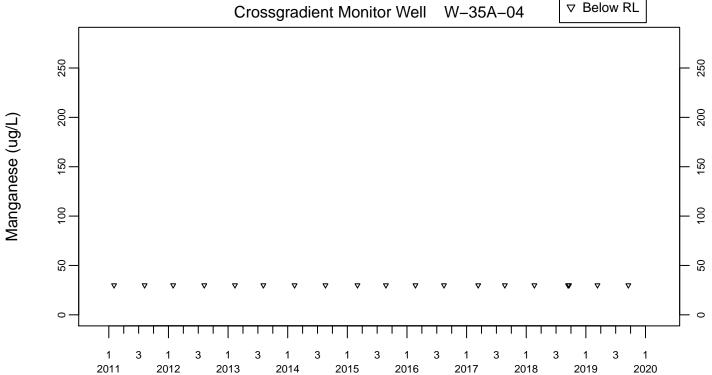
Sewage Ponds Ground Water Manganese (ug/L)



2018

2017

2019

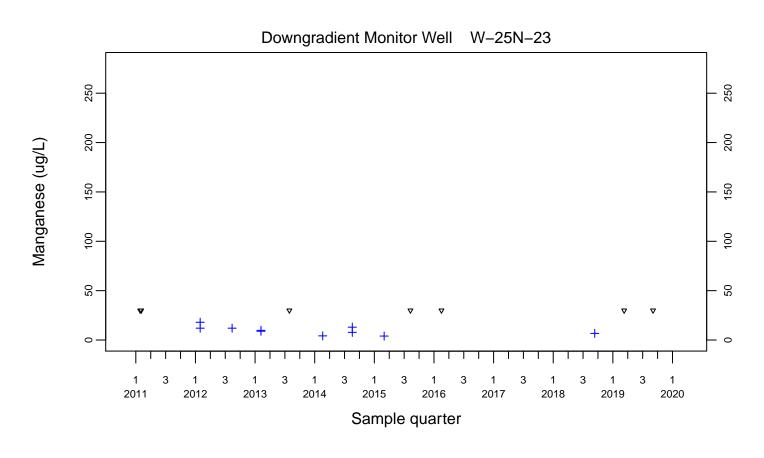


Sample quarter

2014

2013

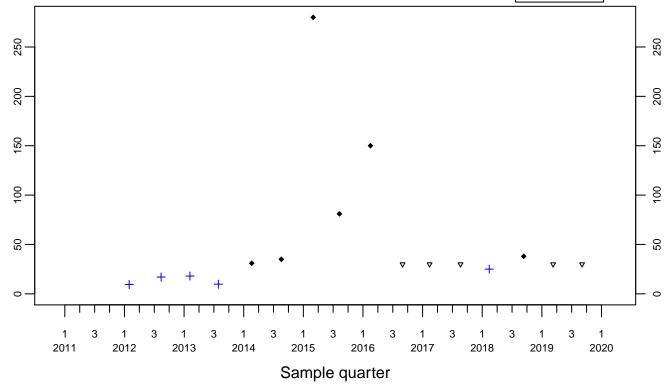
2012



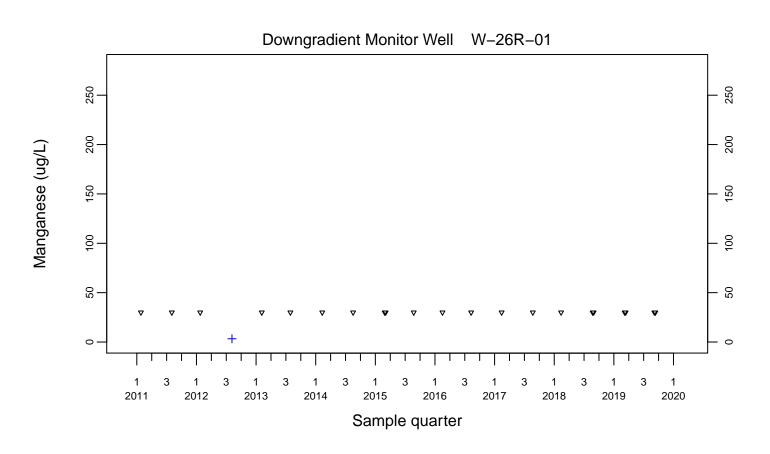


◆ Above RL▽ Below RL+ Estimated



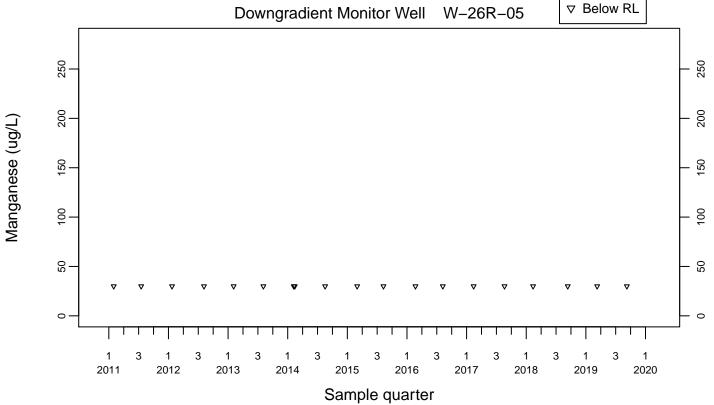


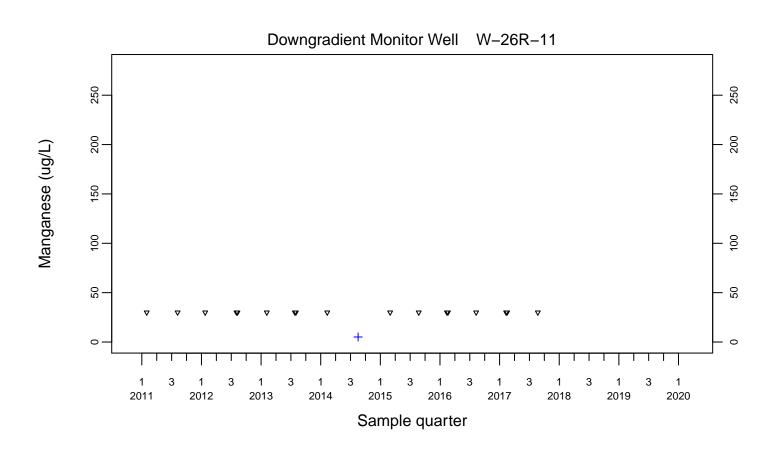
Manganese (ug/L)





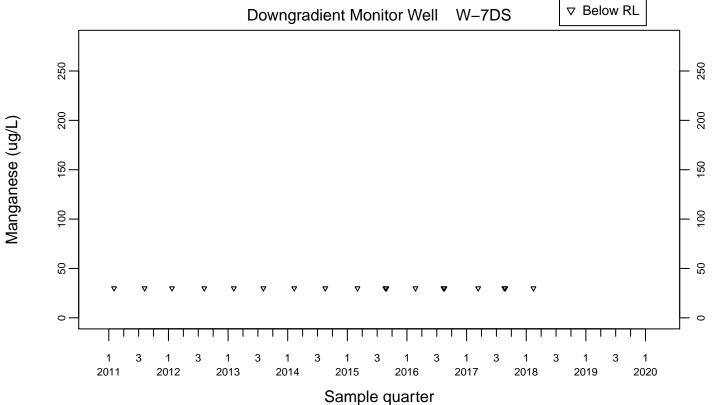


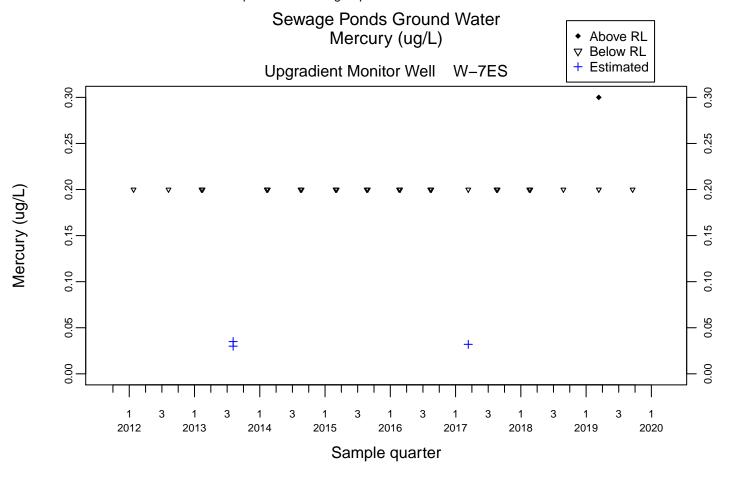


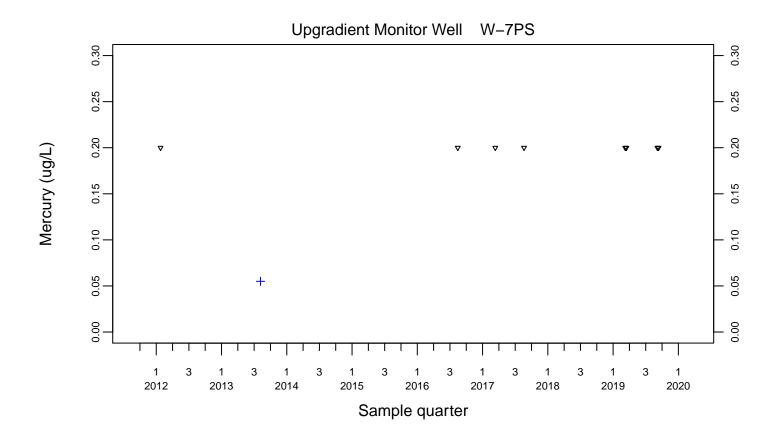


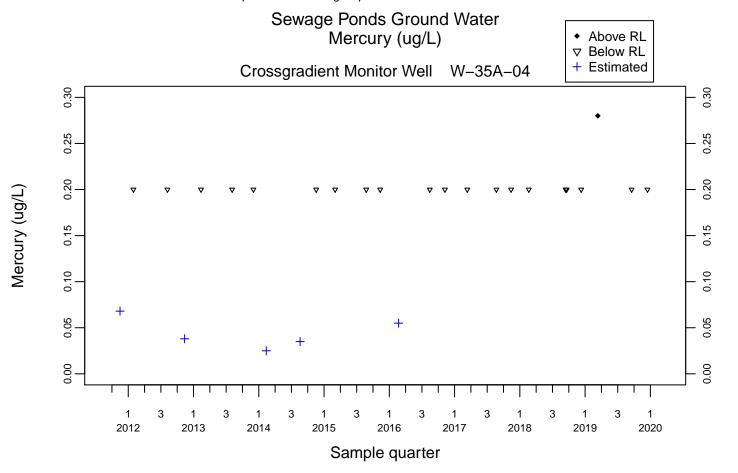
Sewage Ponds Ground Water Manganese (ug/L)

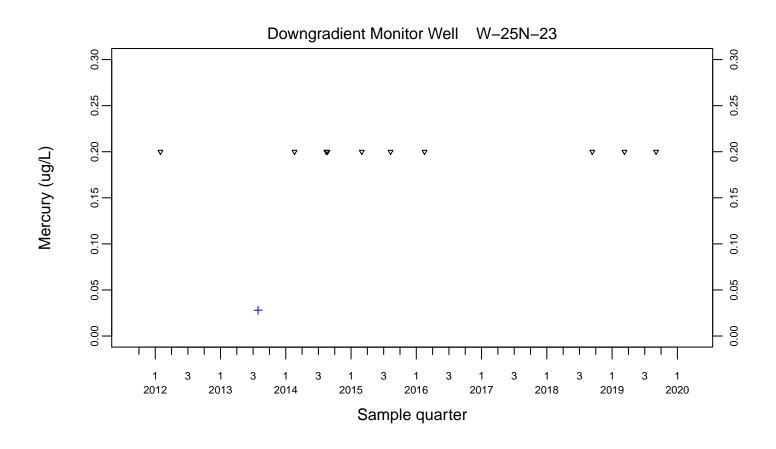


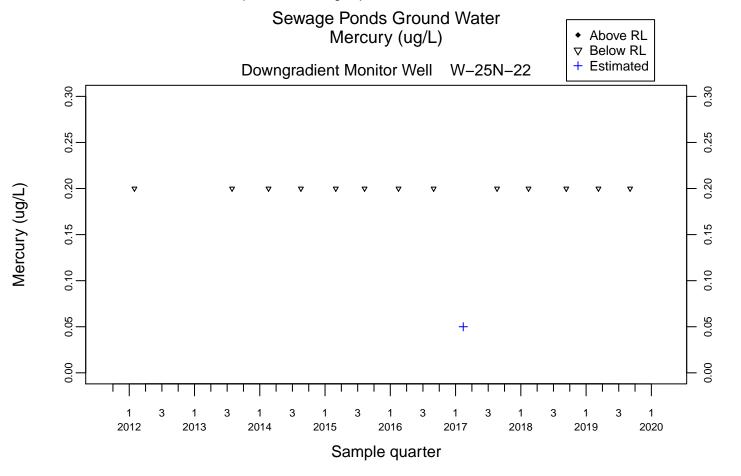


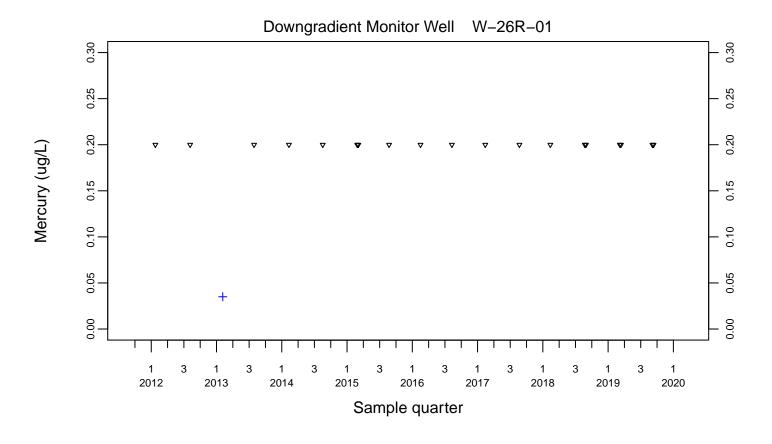


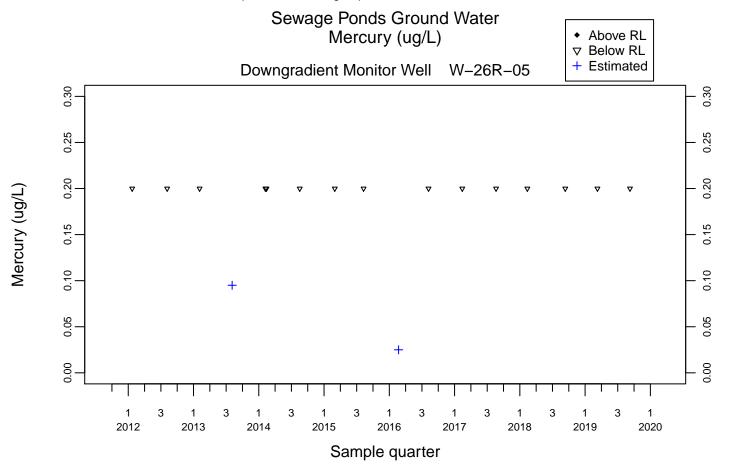


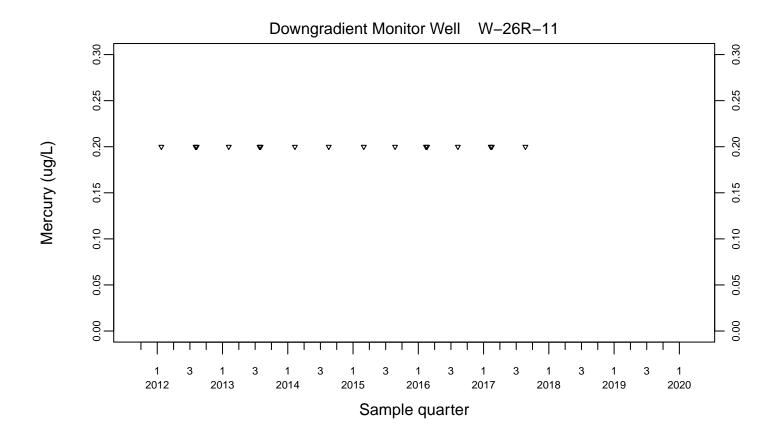


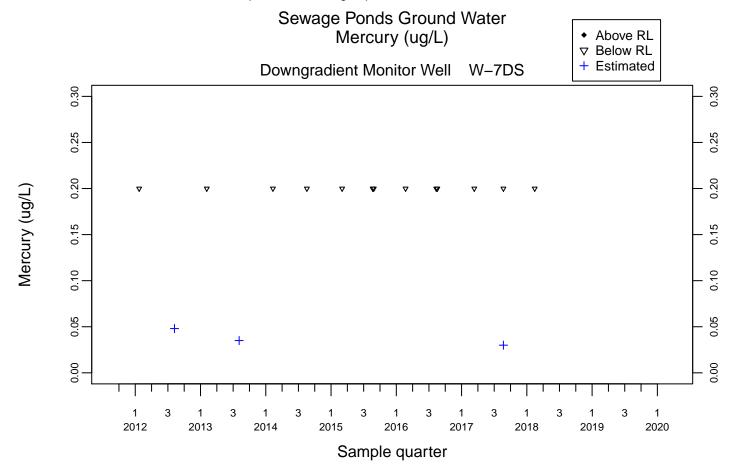








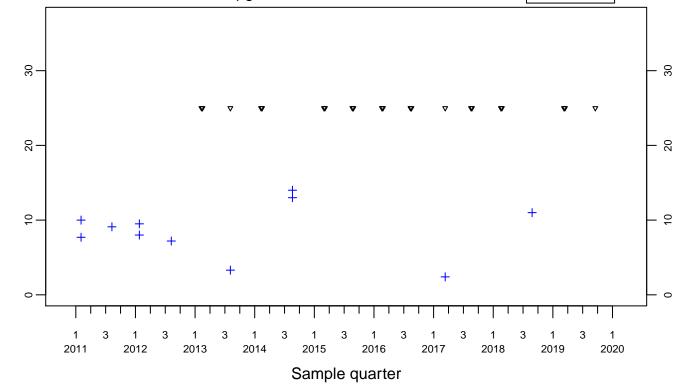




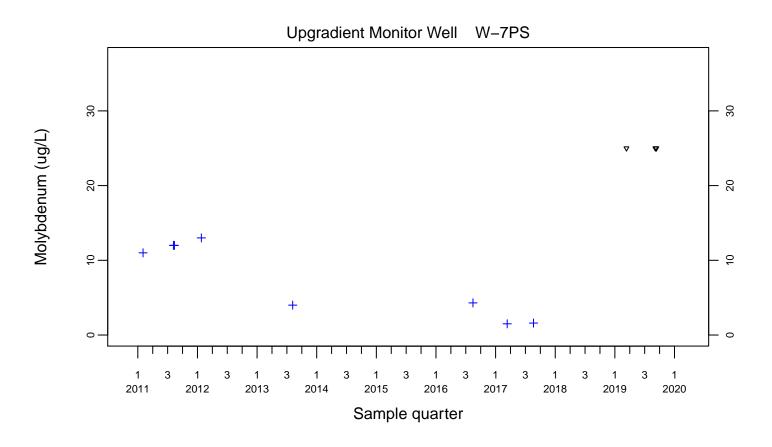
Sewage Ponds Ground Water Molybdenum (ug/L)



Upgradient Monitor Well W-7ES



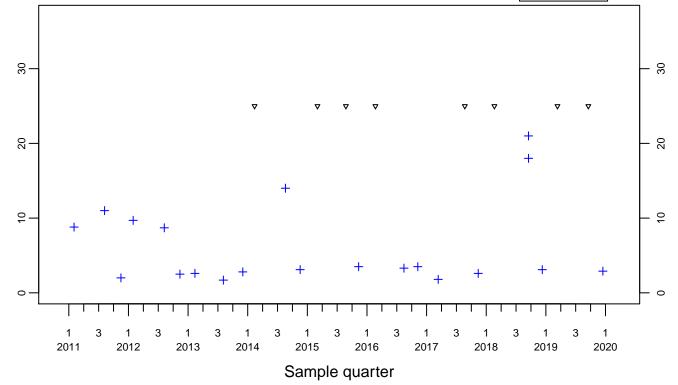
Molybdenum (ug/L)



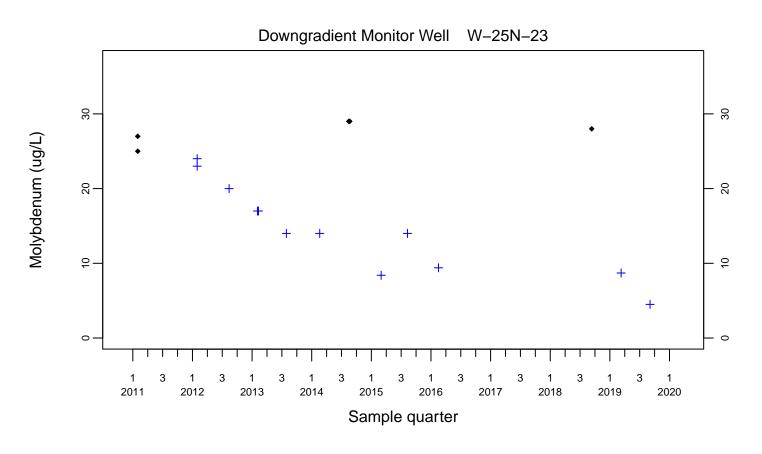
Sewage Ponds Ground Water Molybdenum (ug/L)

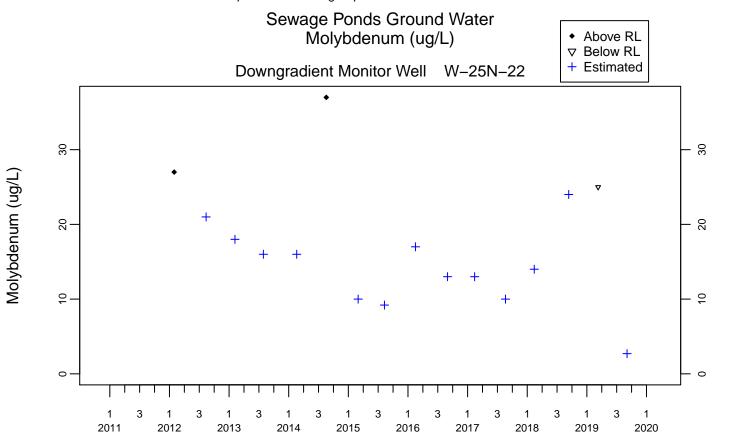
Above RLBelow RL+ Estimated



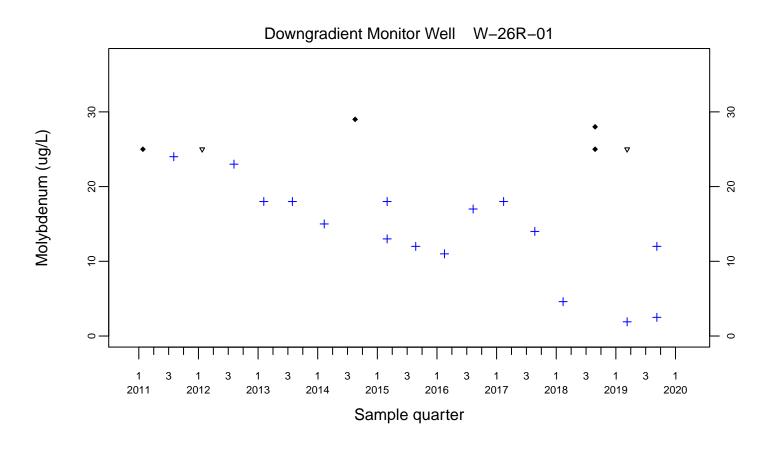


Molybdenum (ug/L)





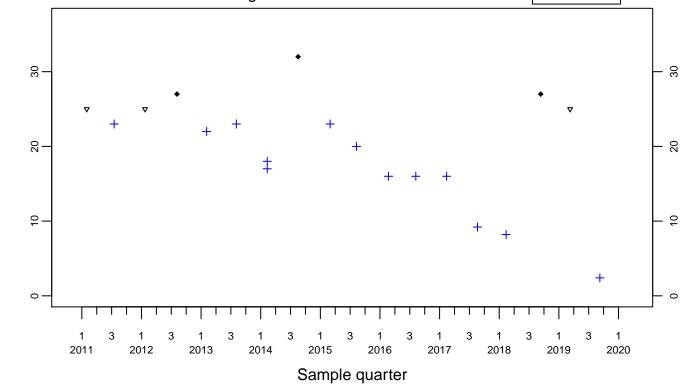
Sample quarter



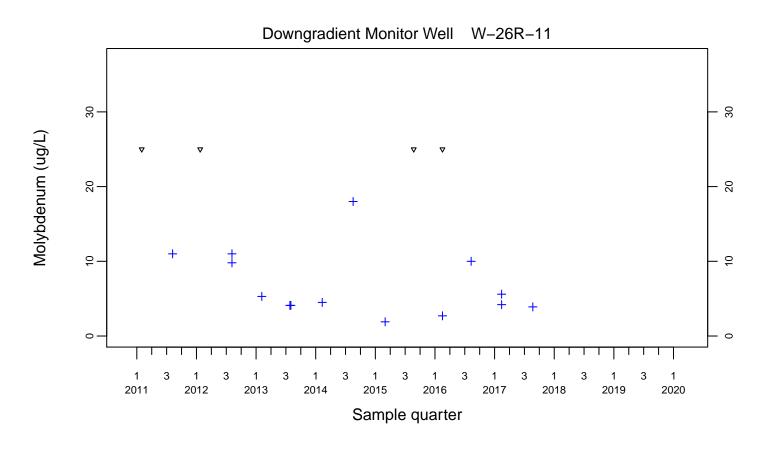
Sewage Ponds Ground Water Molybdenum (ug/L)



Downgradient Monitor Well W-26R-05



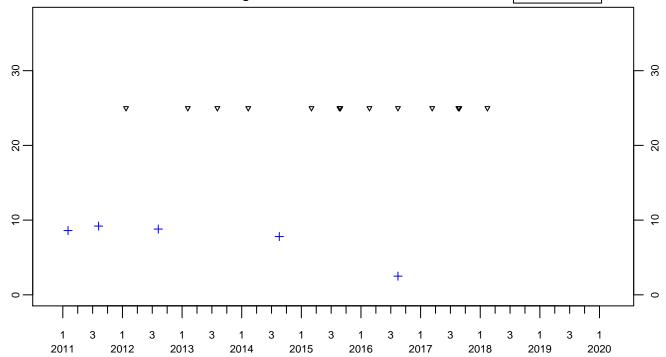
Molybdenum (ug/L)



Sewage Ponds Ground Water Molybdenum (ug/L)

◆ Above RL▽ Below RL+ Estimated

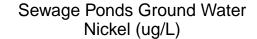


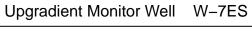


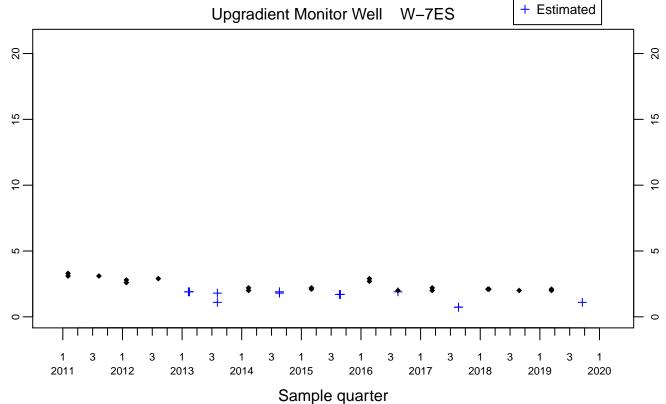
Sample quarter

Molybdenum (ug/L)

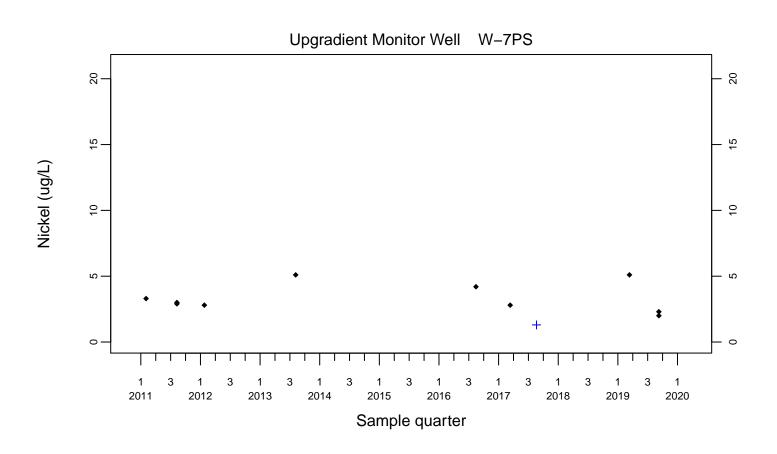
Above RL

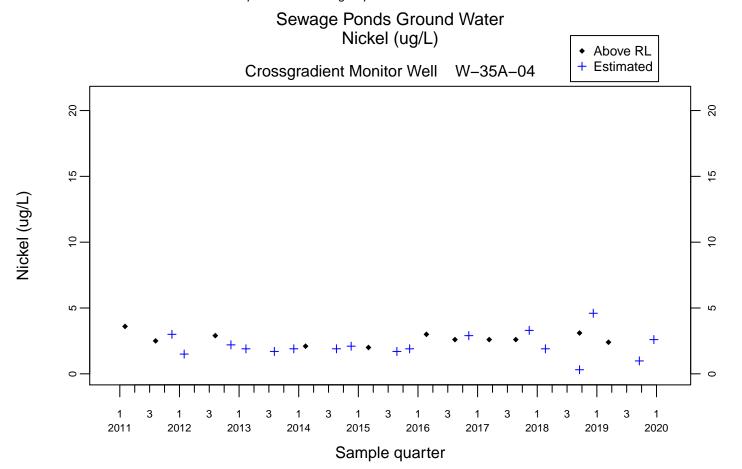


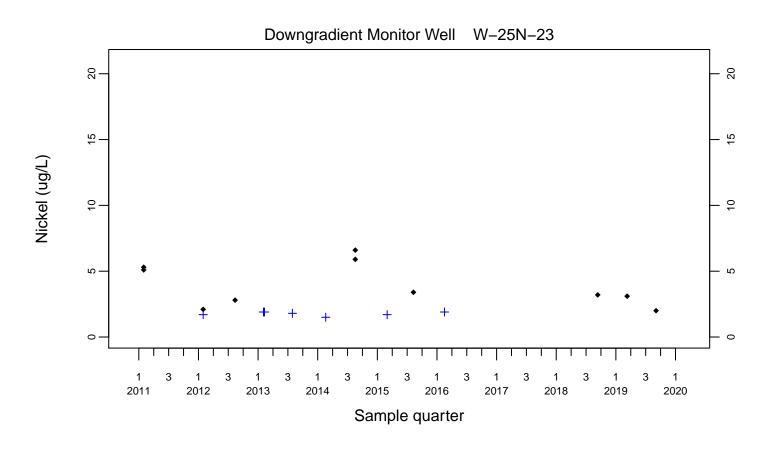


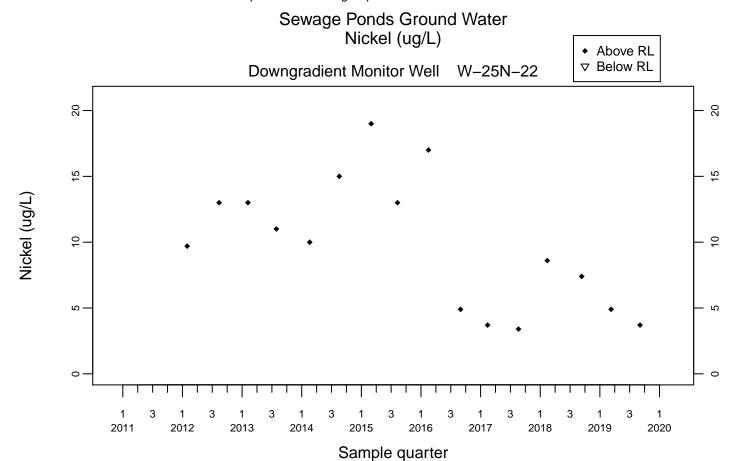


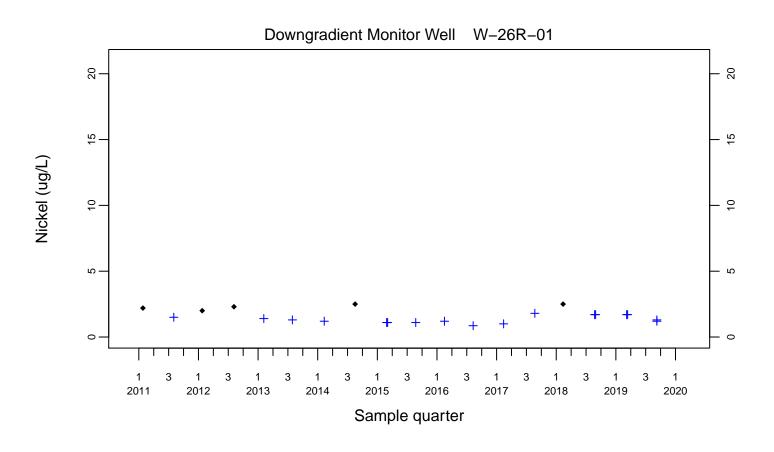
Nickel (ug/L)

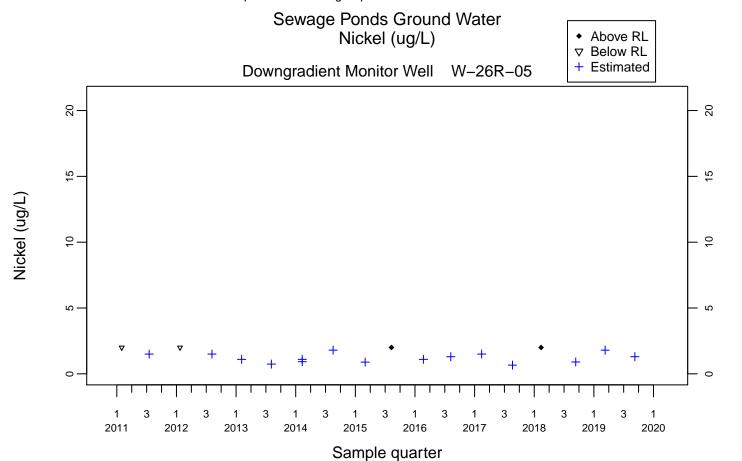


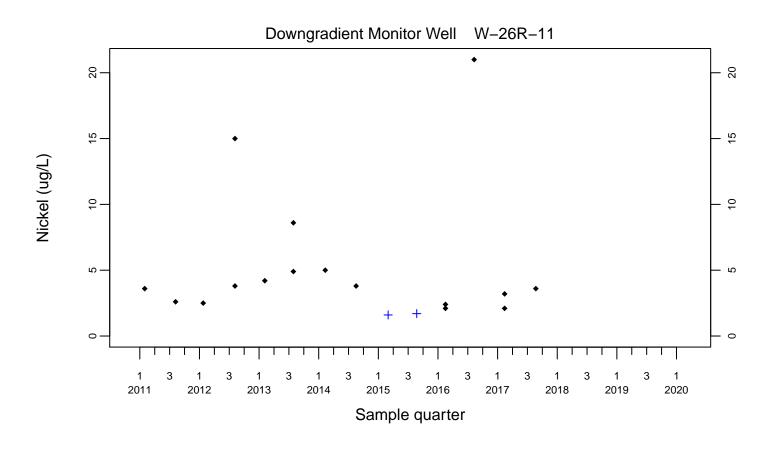


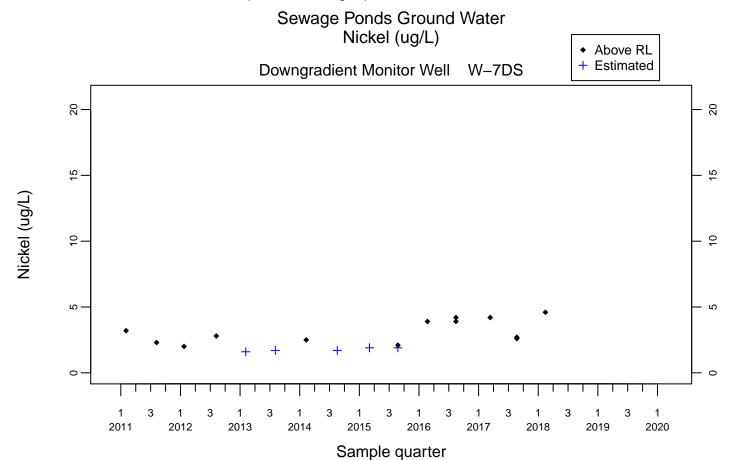


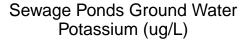




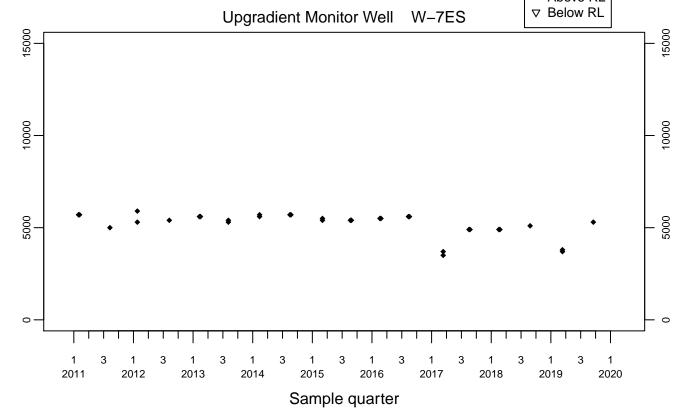




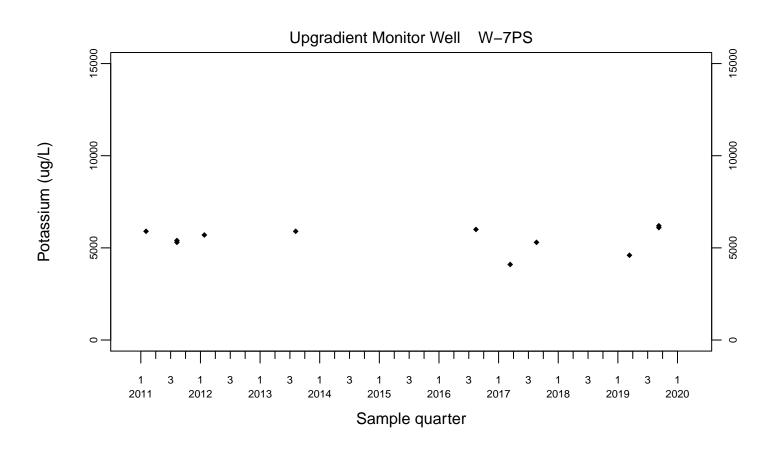


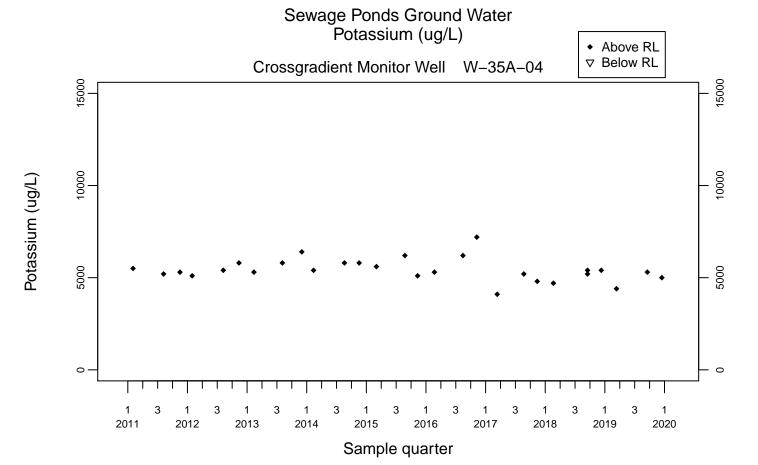


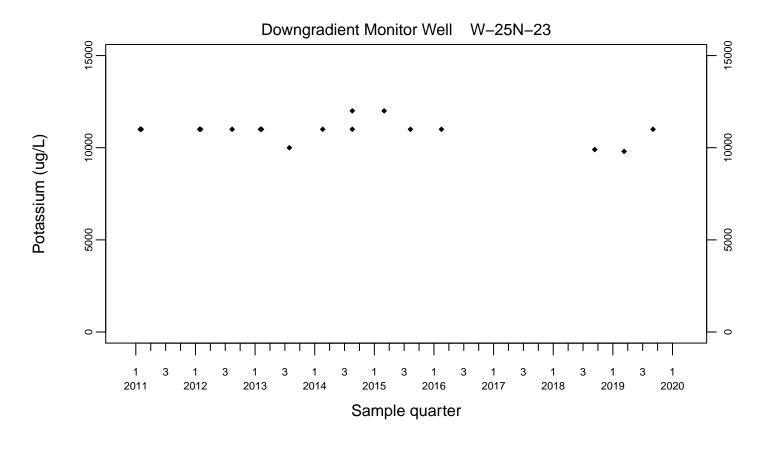


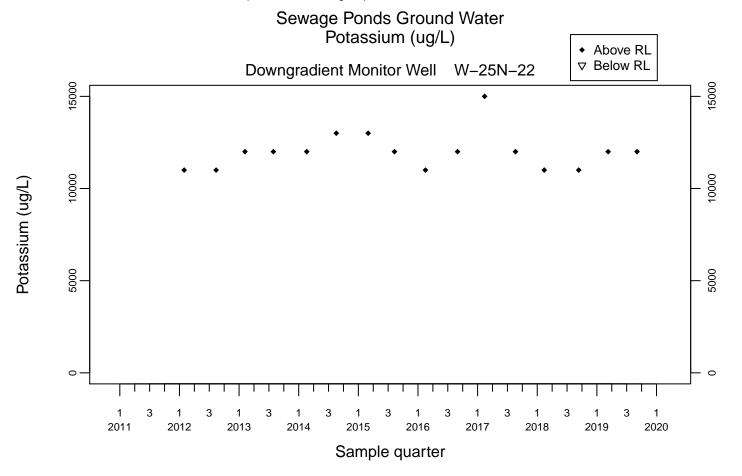


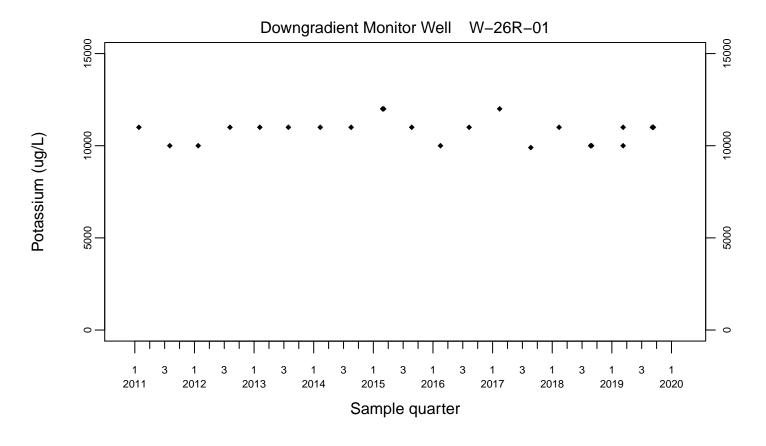
Potassium (ug/L)

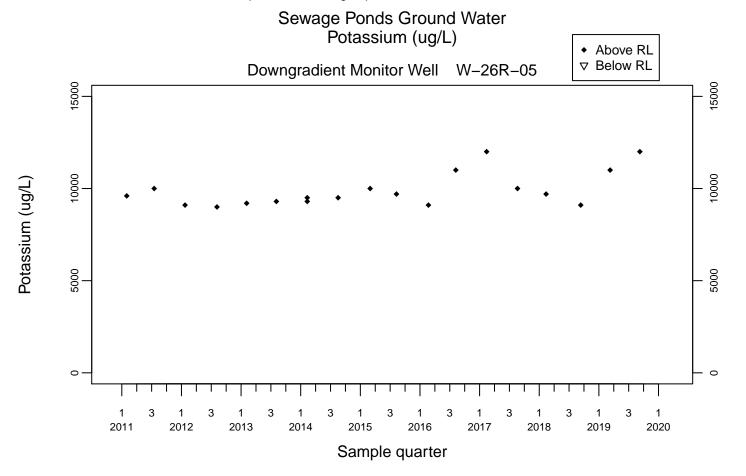


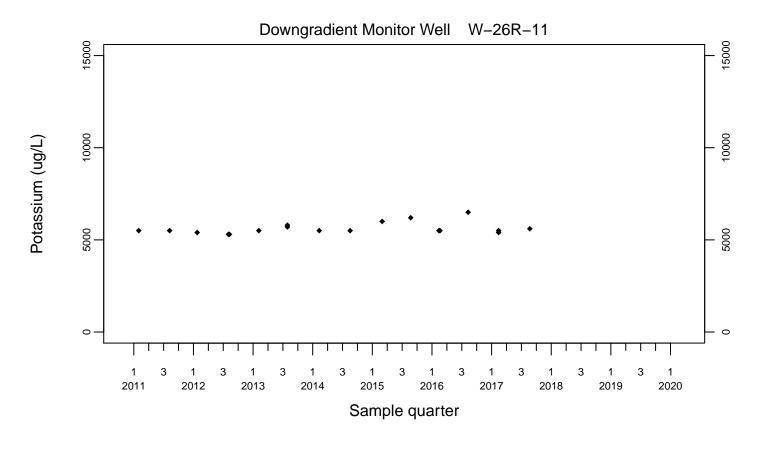


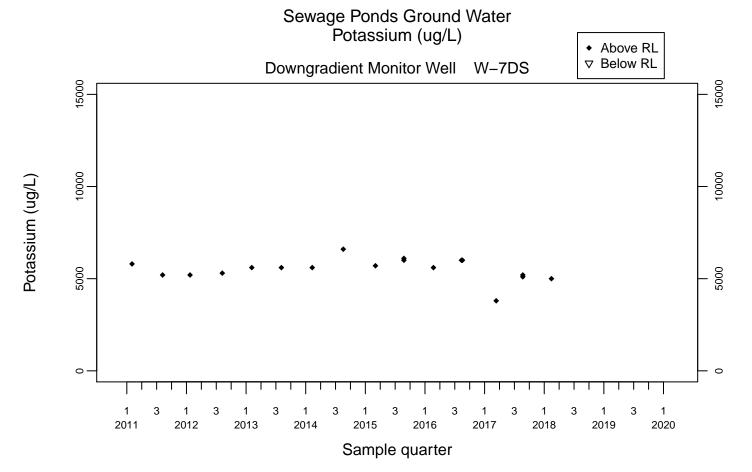






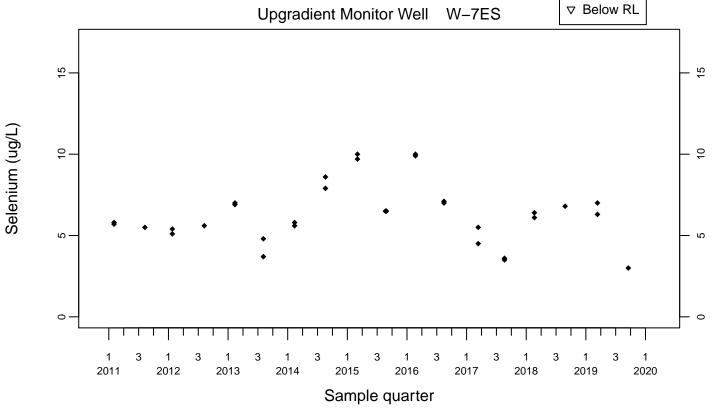


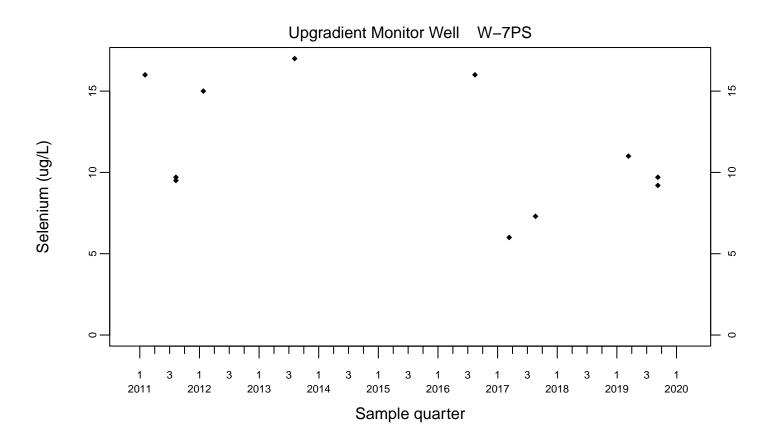


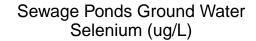


Sewage Ponds Ground Water Selenium (ug/L)

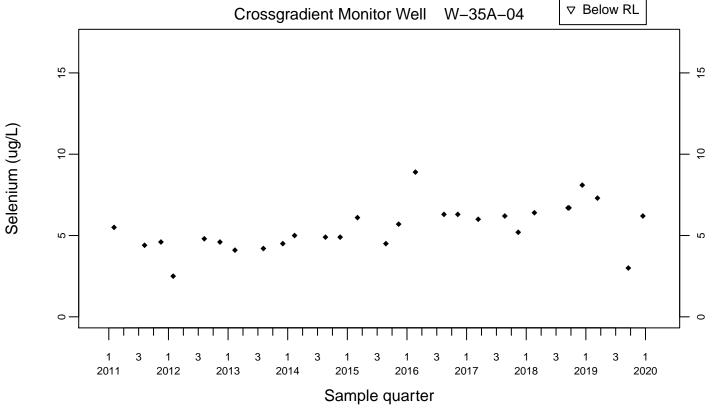


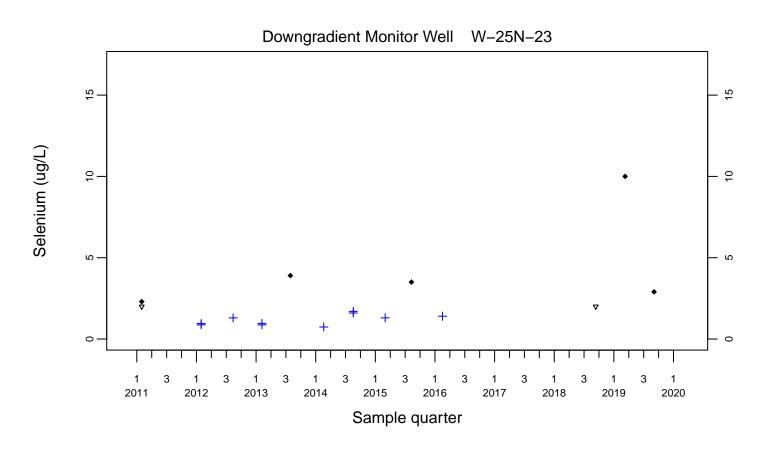


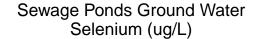




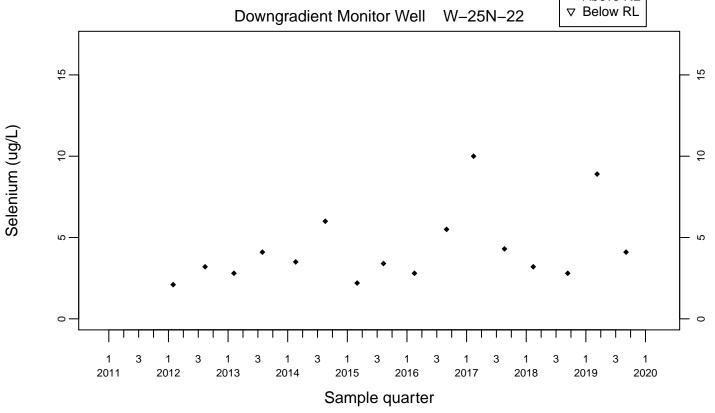


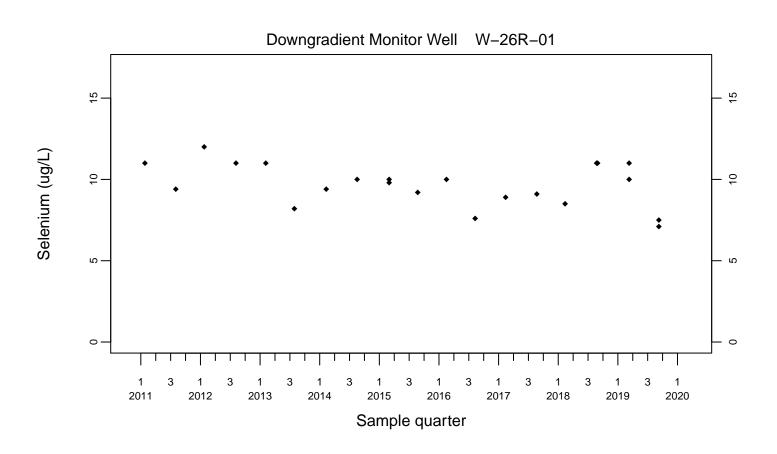




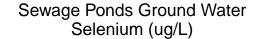


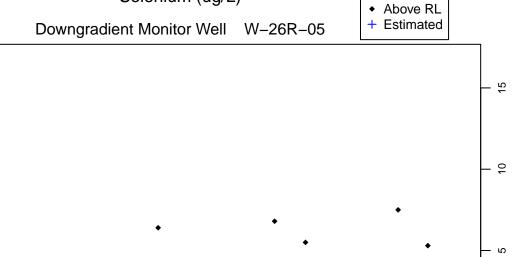






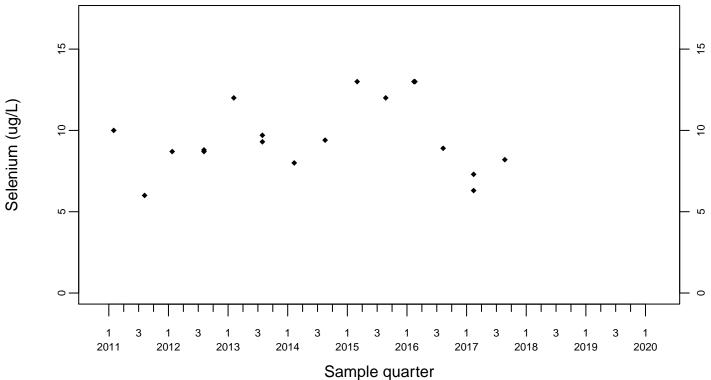
Selenium (ug/L)

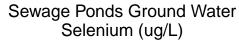


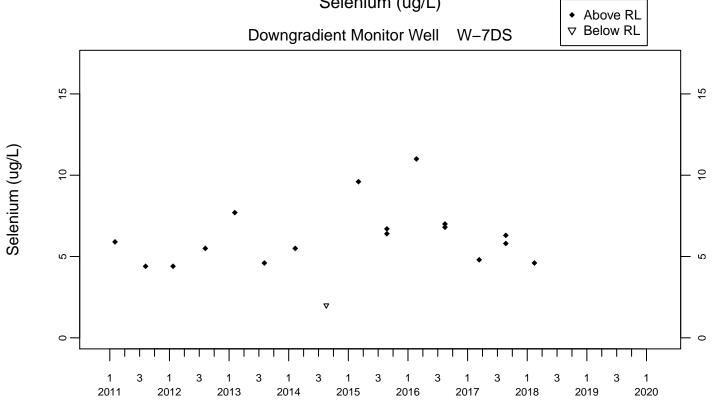




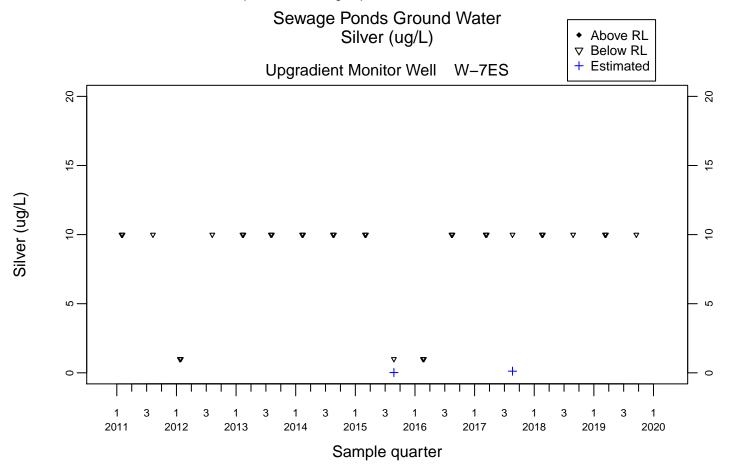
Sample quarter

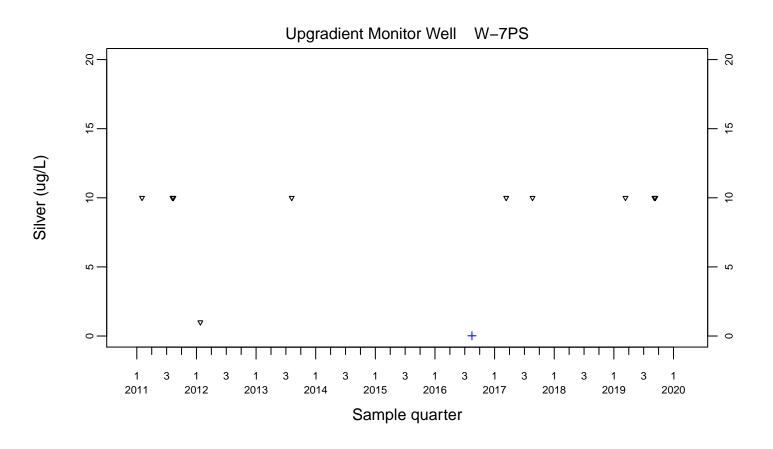


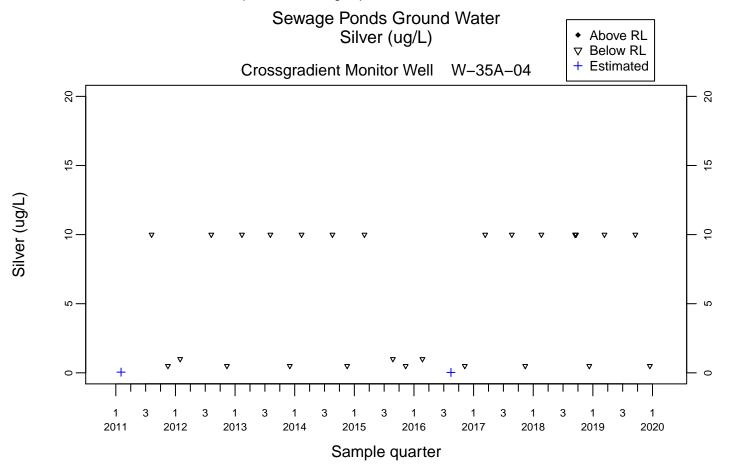


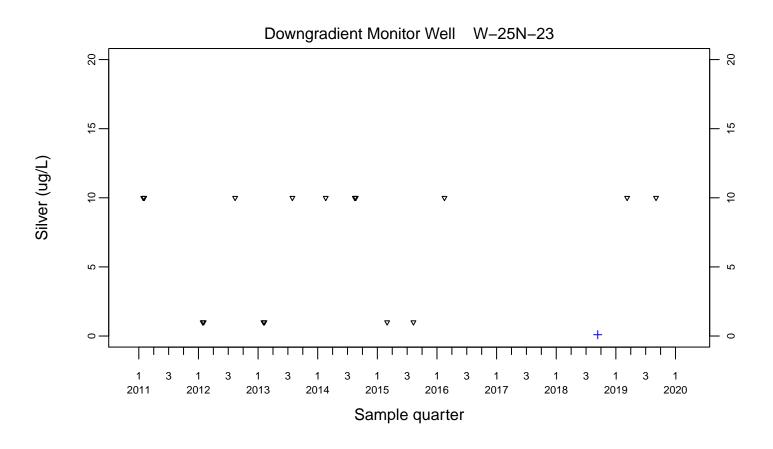


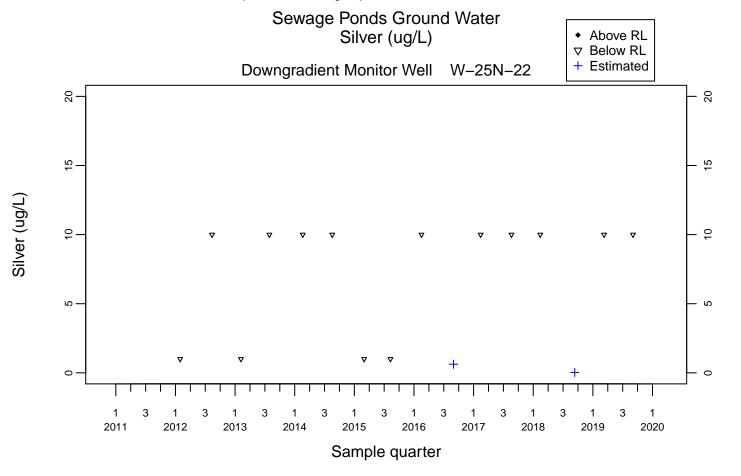
Sample quarter

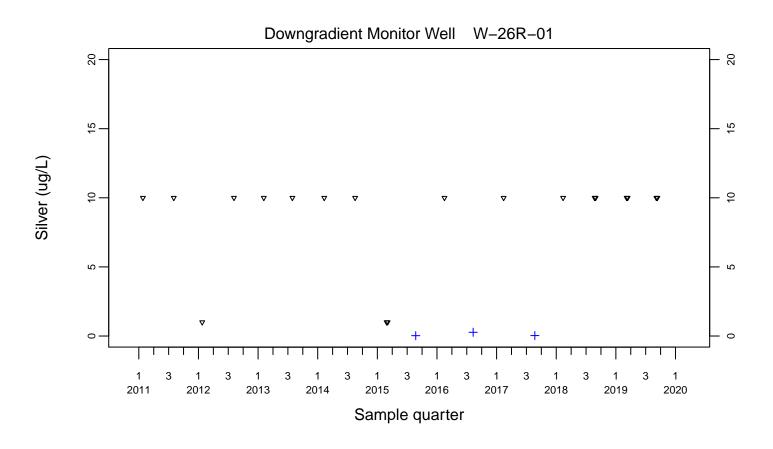


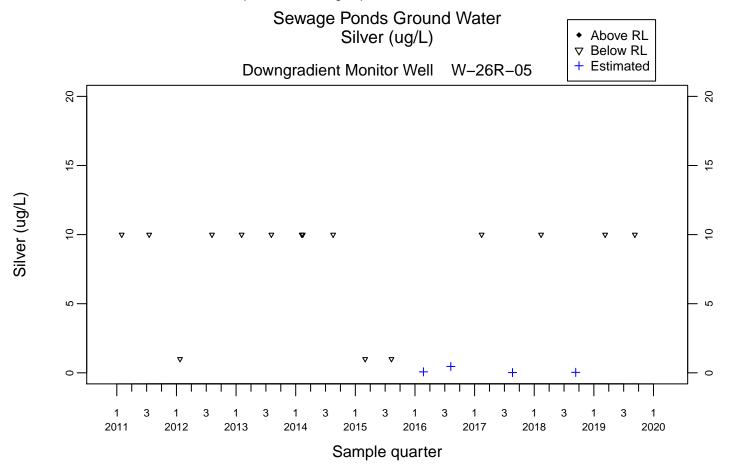


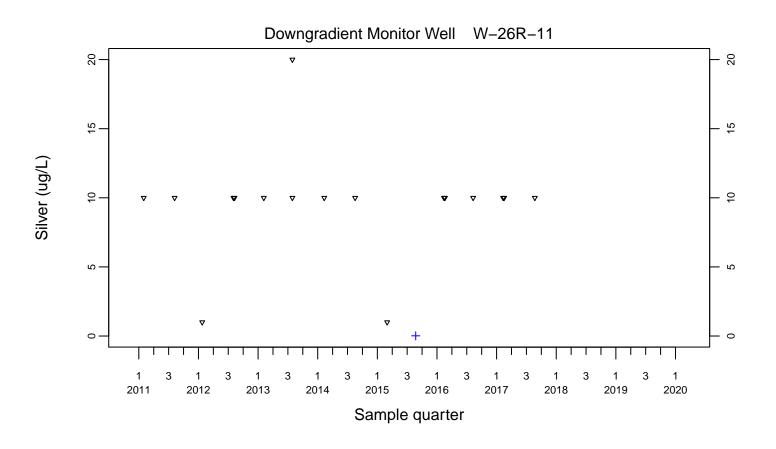


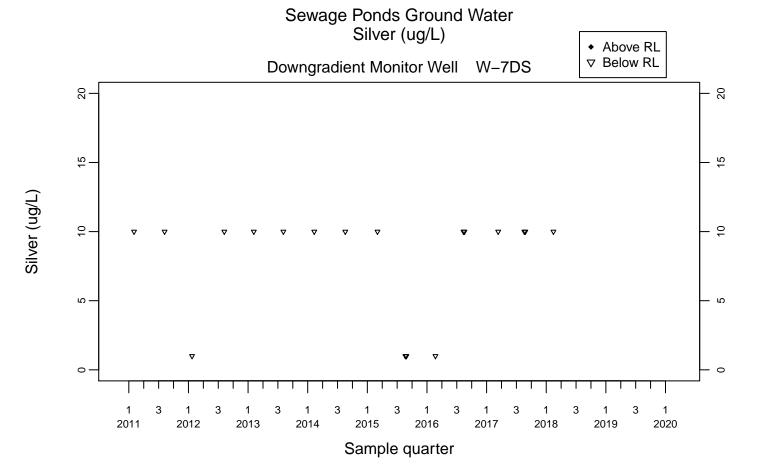


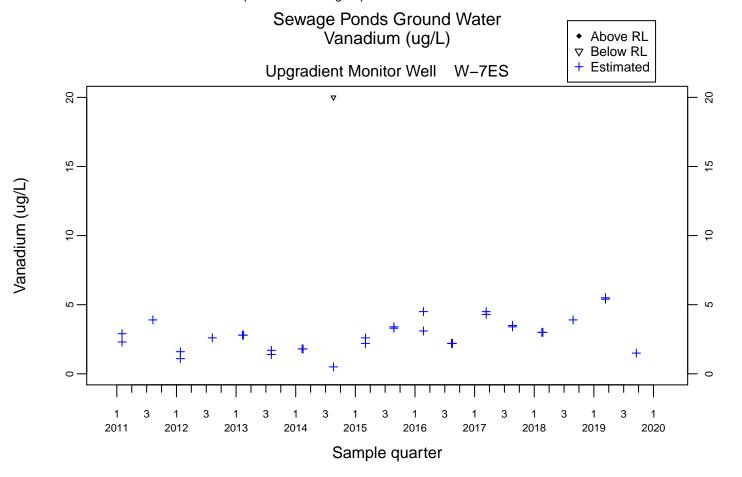


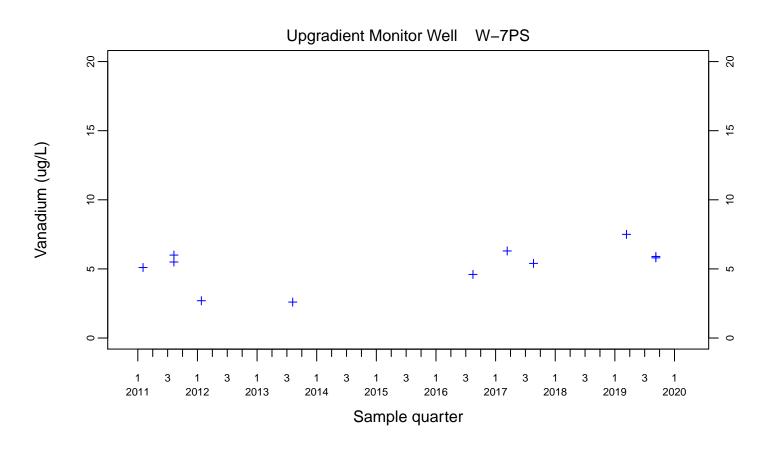


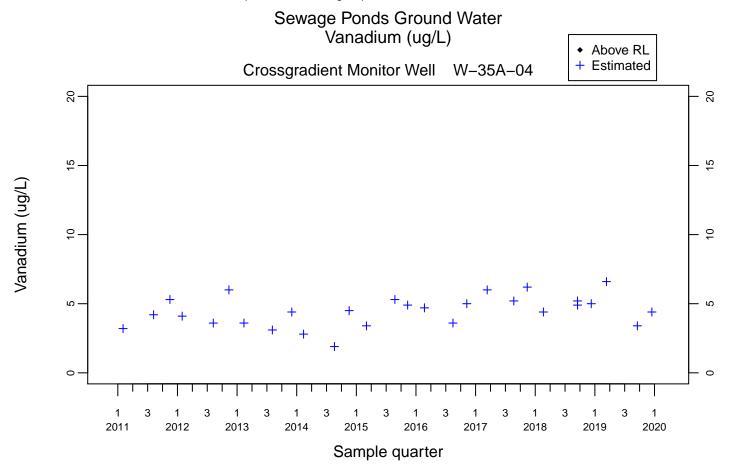


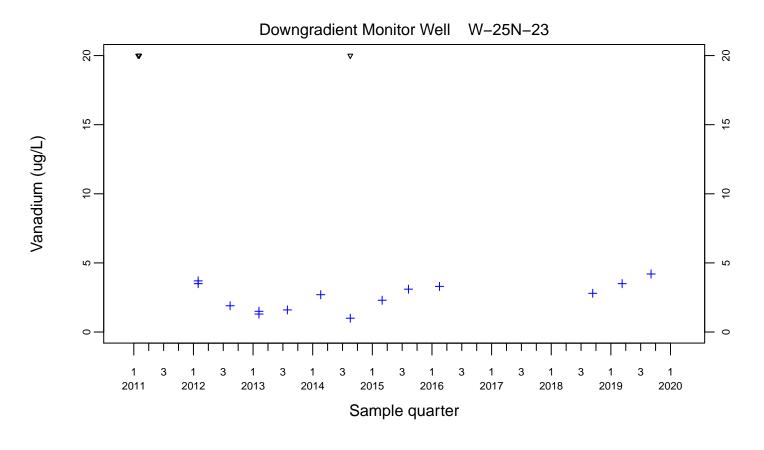


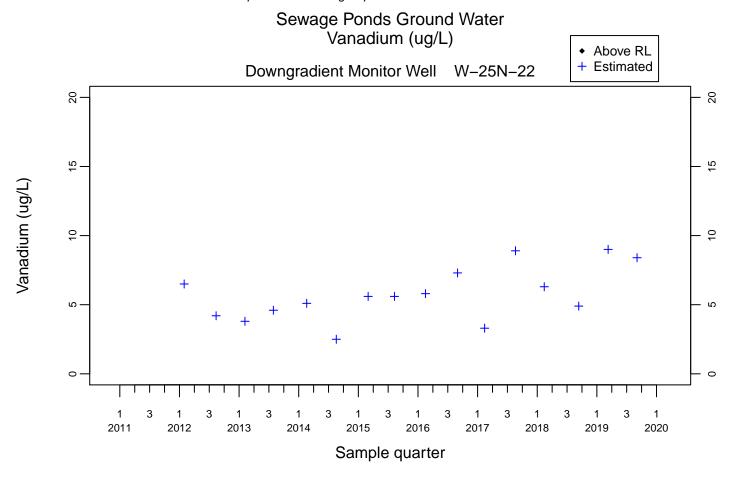


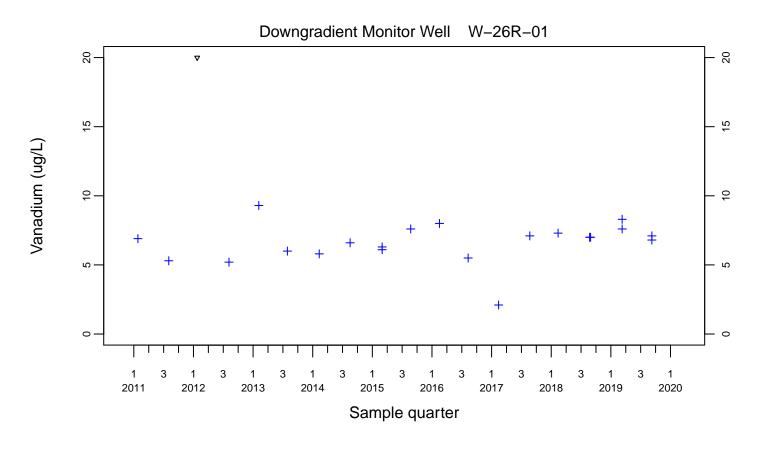


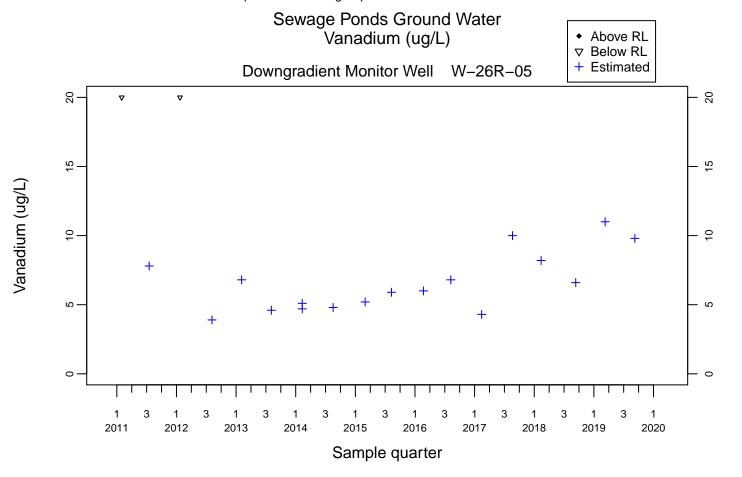


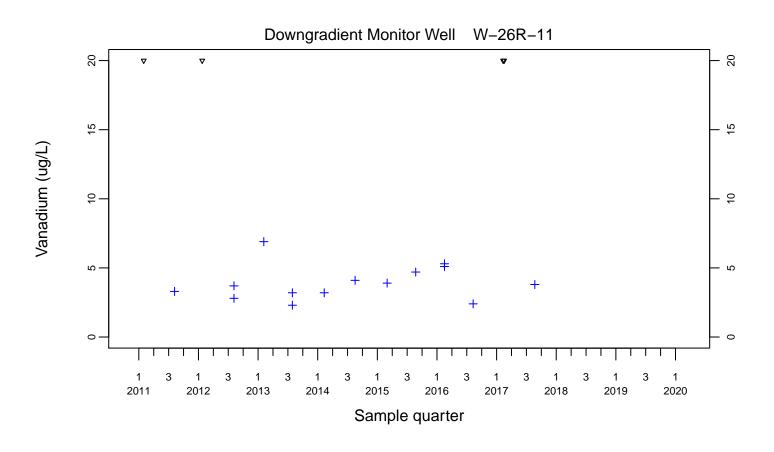


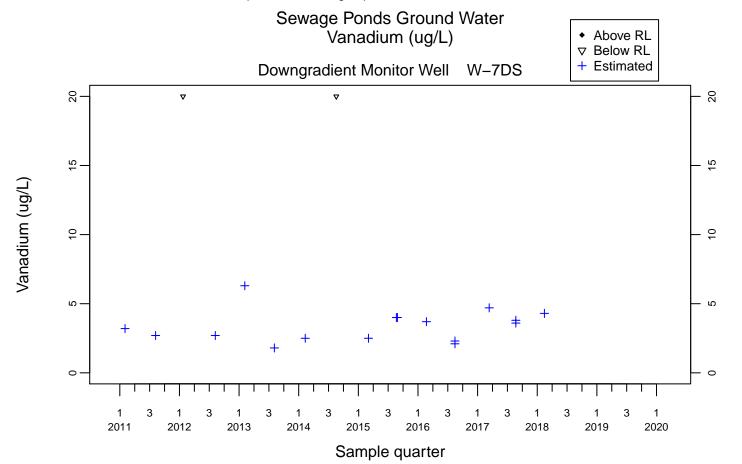


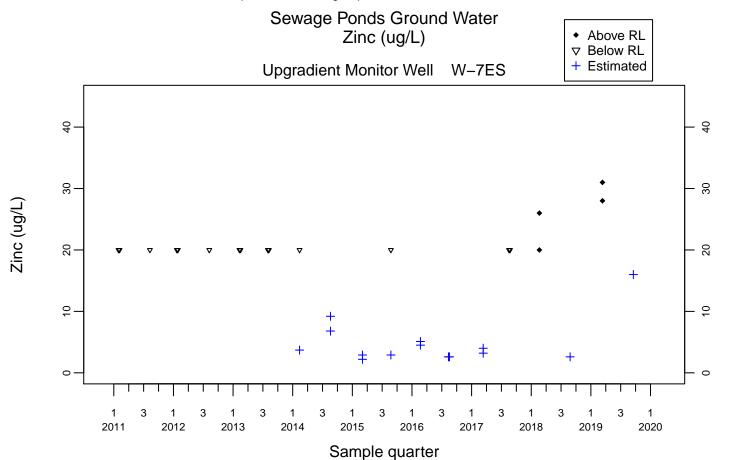


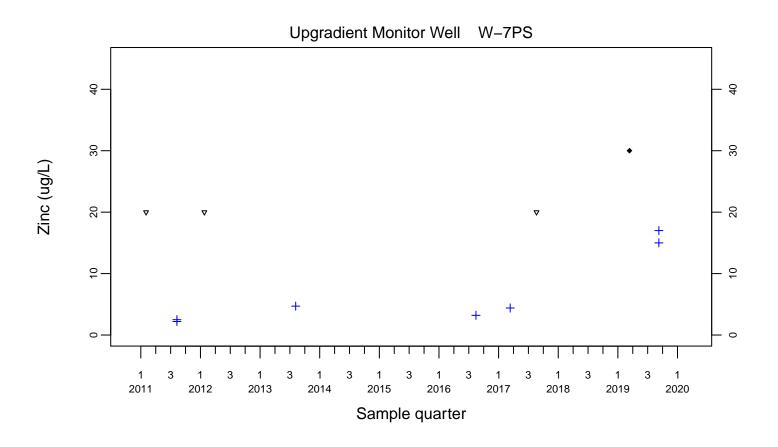


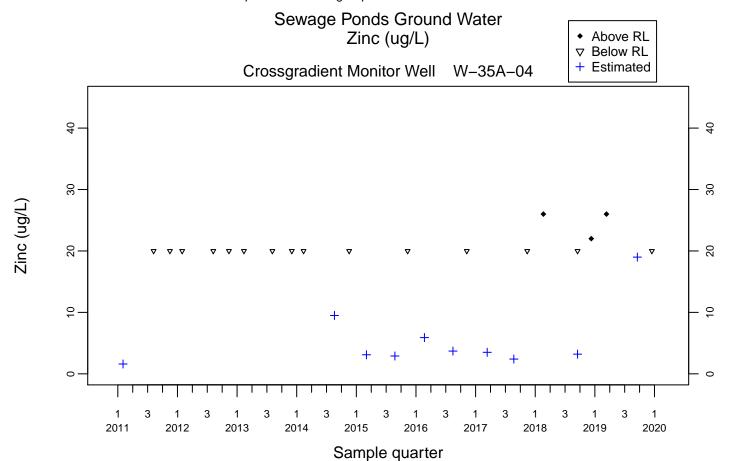


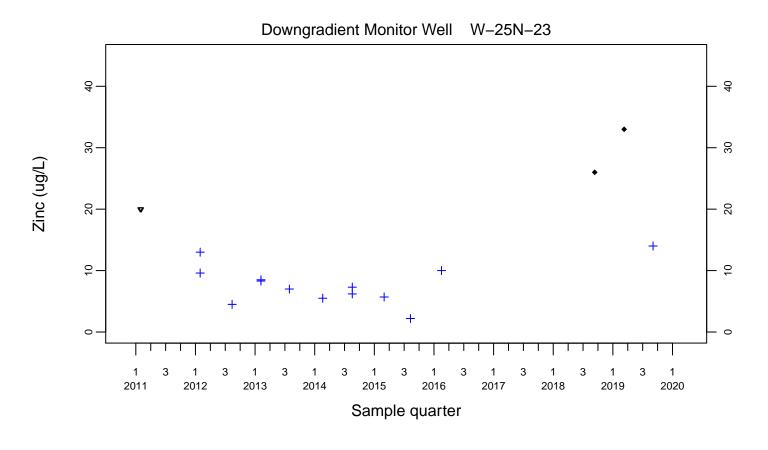


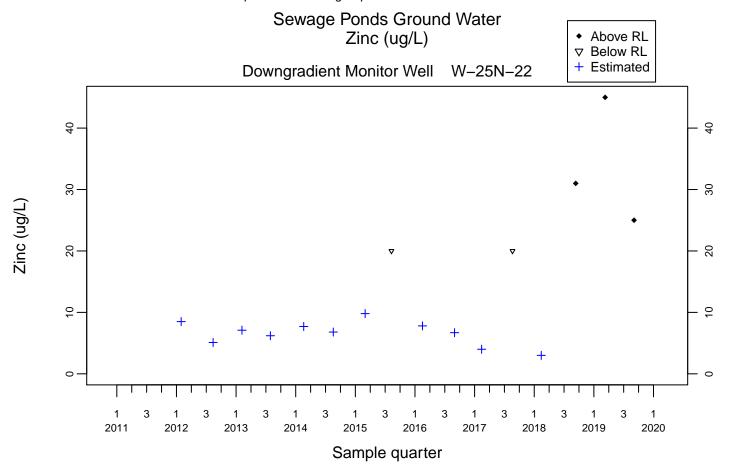


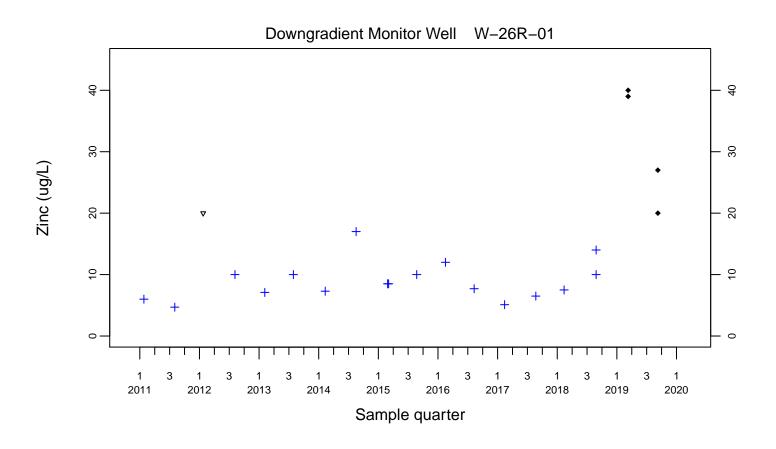


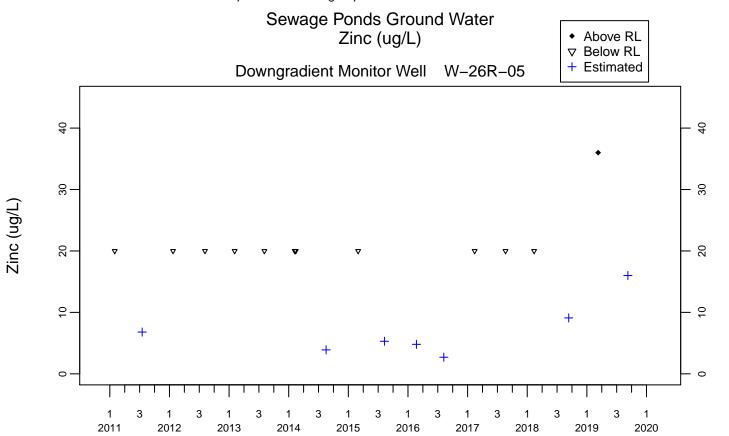




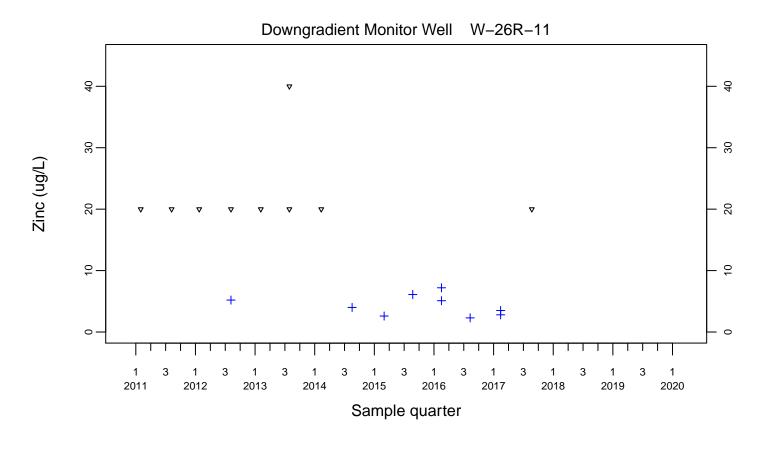






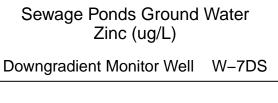


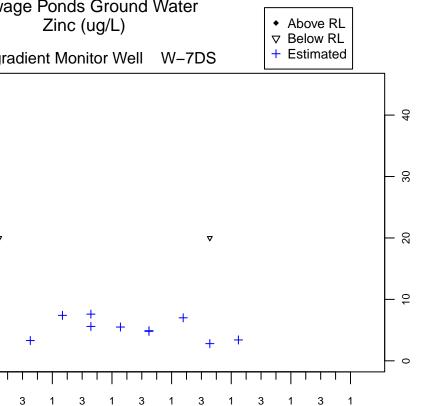
Sample quarter

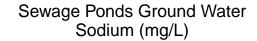


Sample quarter

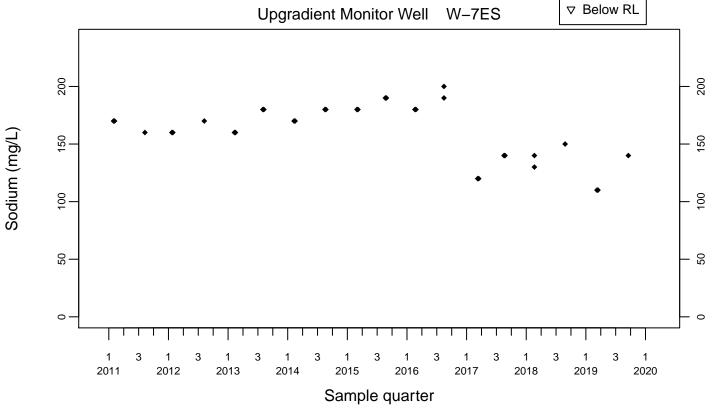
Zinc (ug/L)

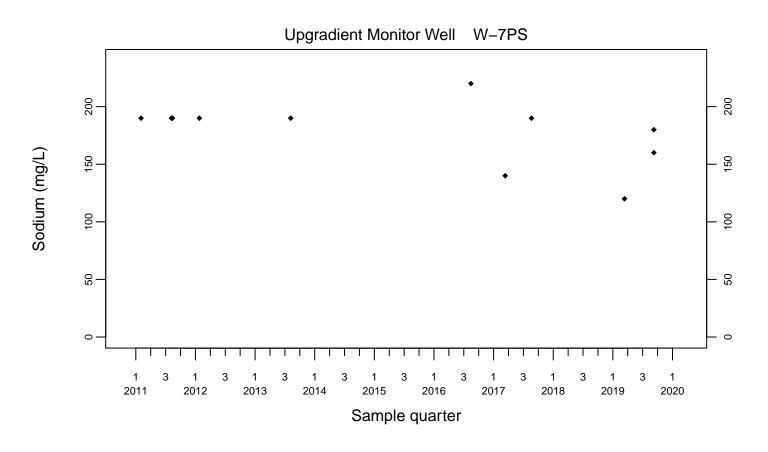


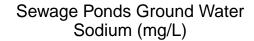




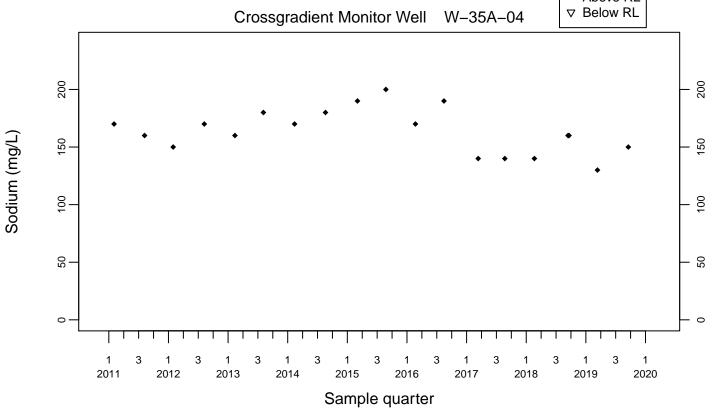


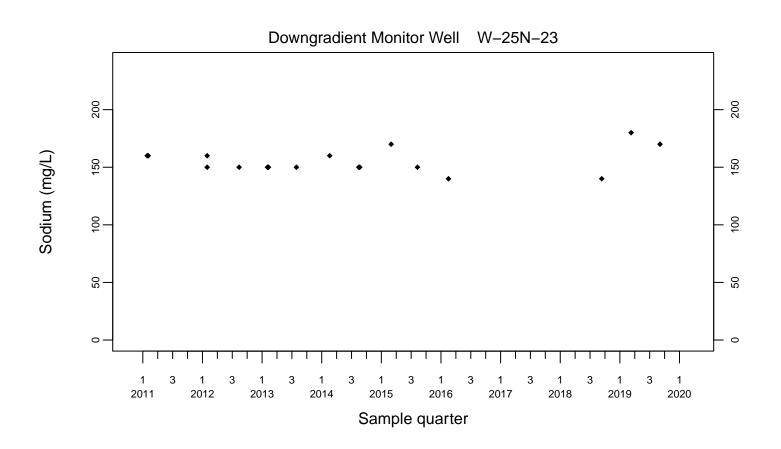


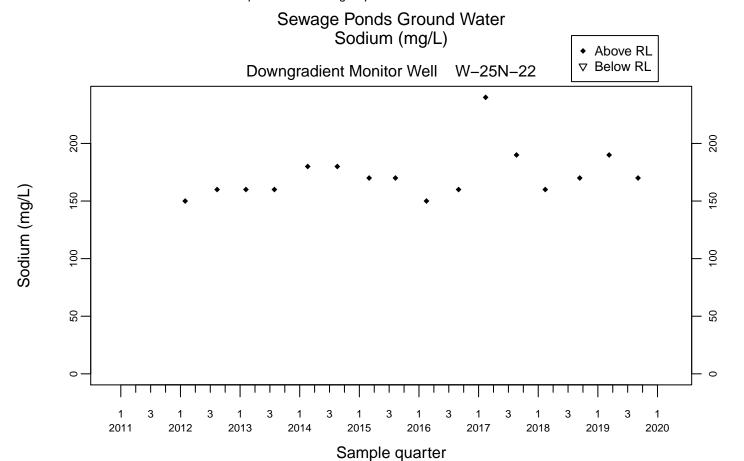


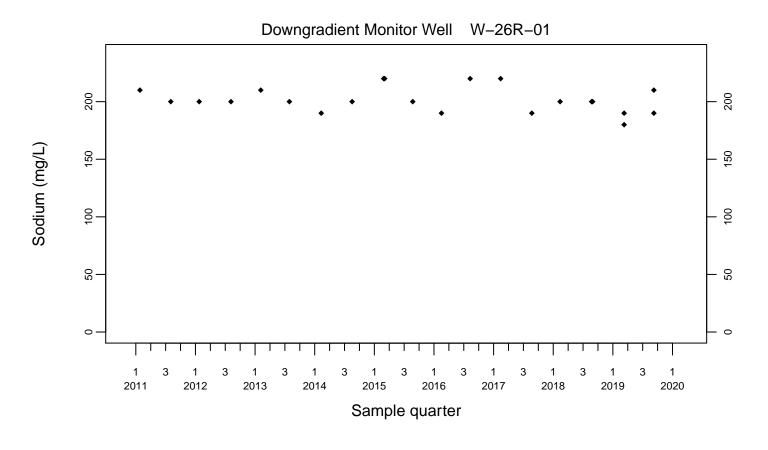


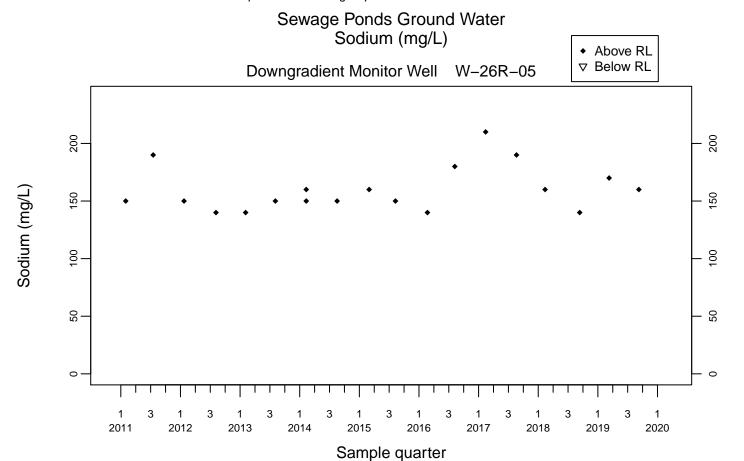
Above RL

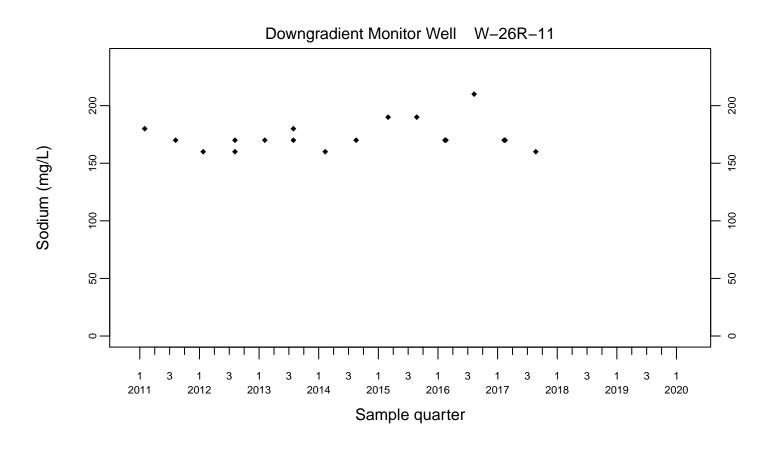


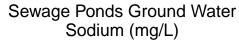


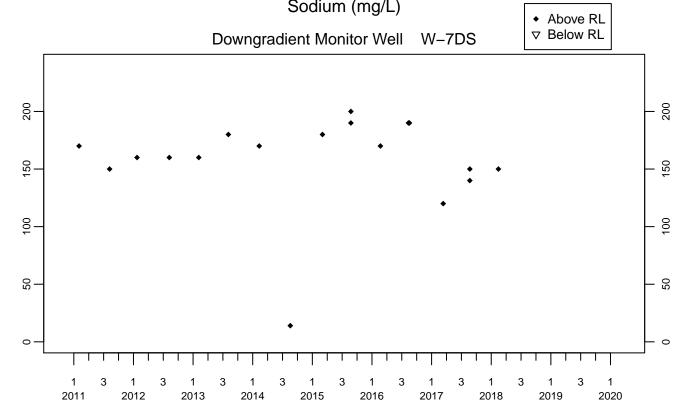






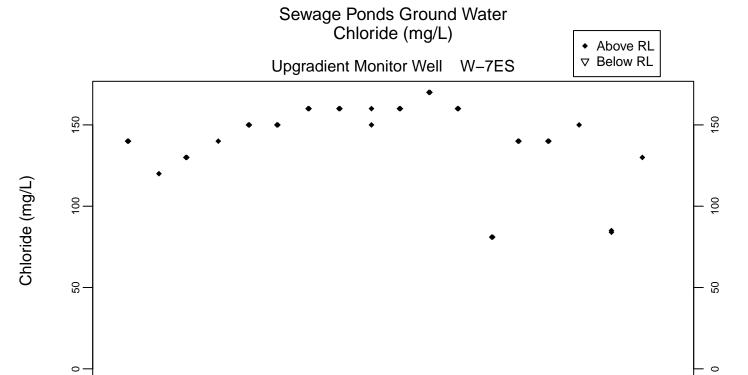




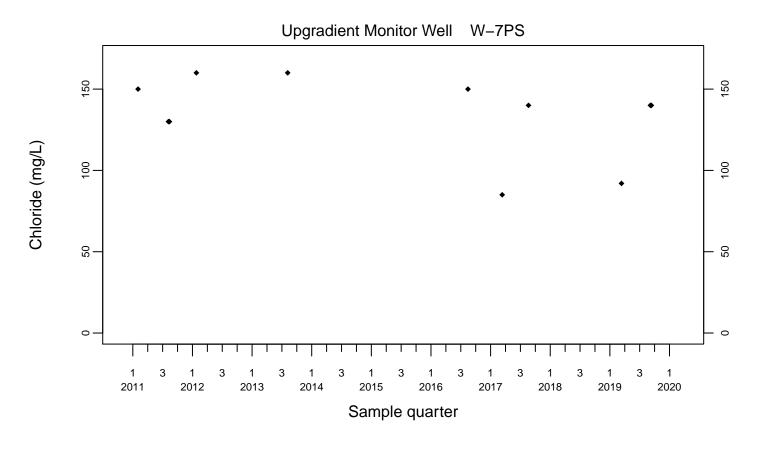


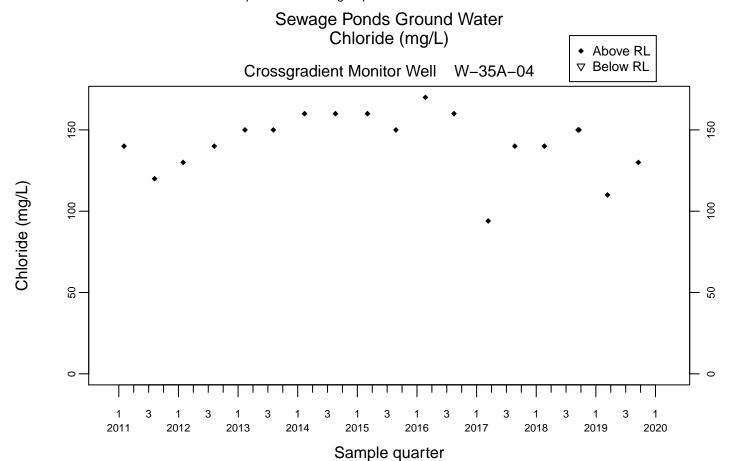
Sample quarter

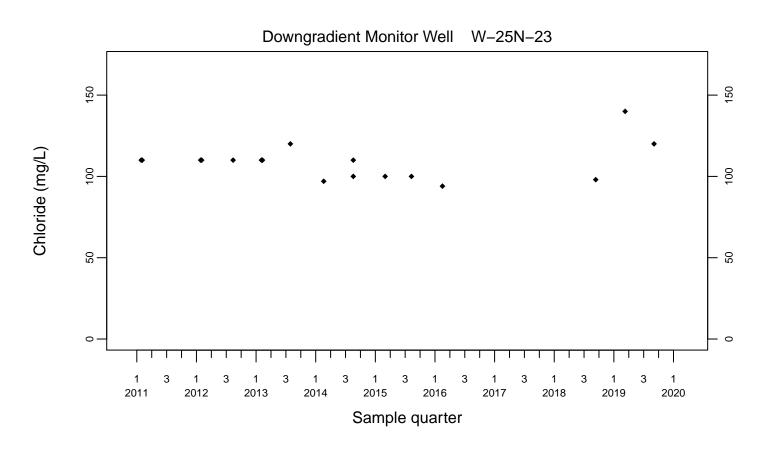
Sodium (mg/L)

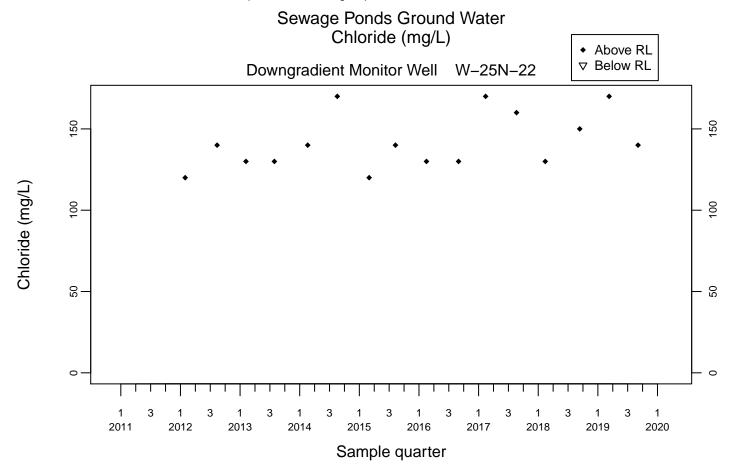


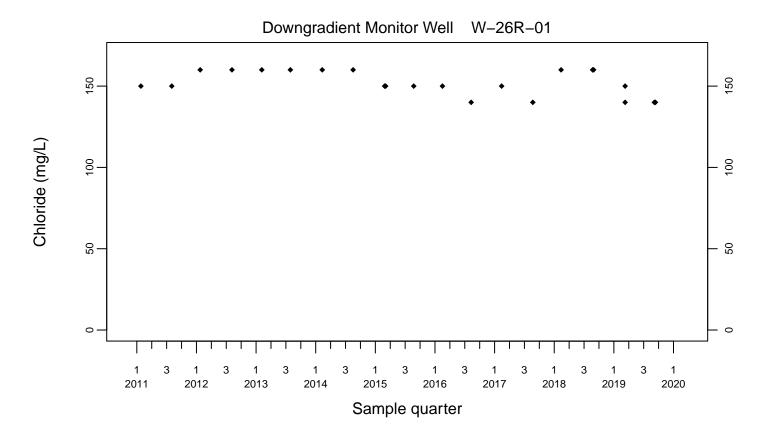
Sample quarter

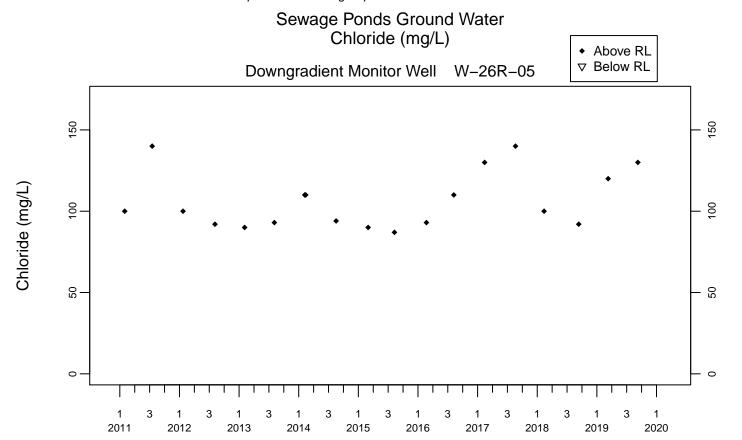




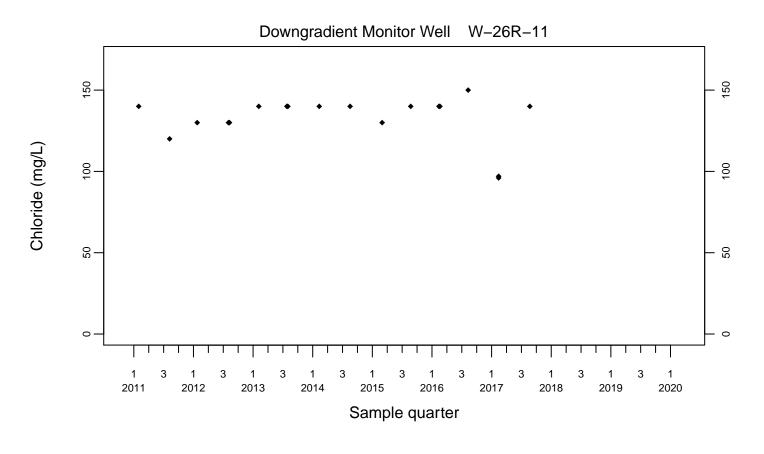


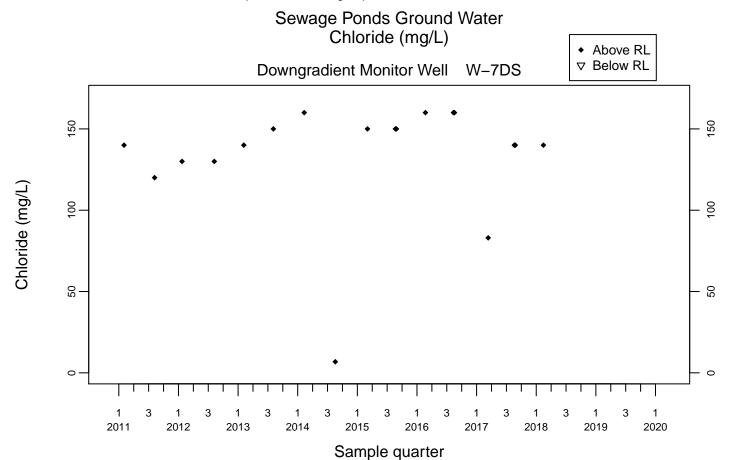






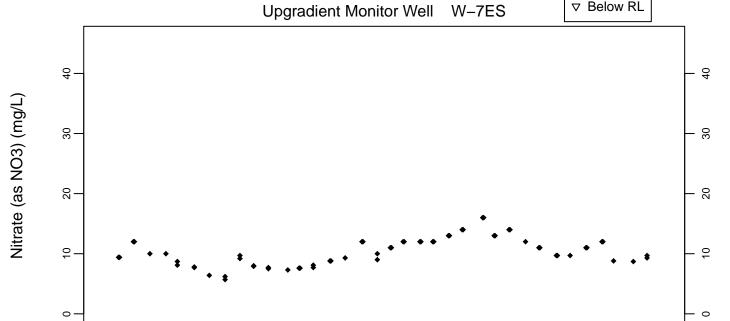
Sample quarter



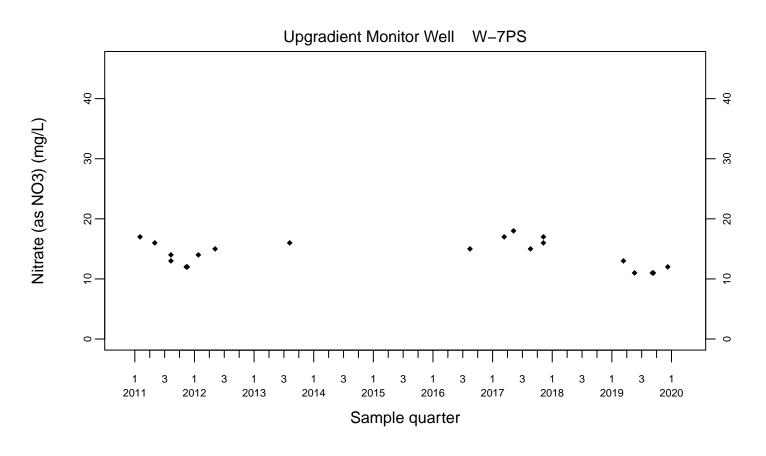


Sewage Ponds Ground Water Nitrate (as NO3) (mg/L)

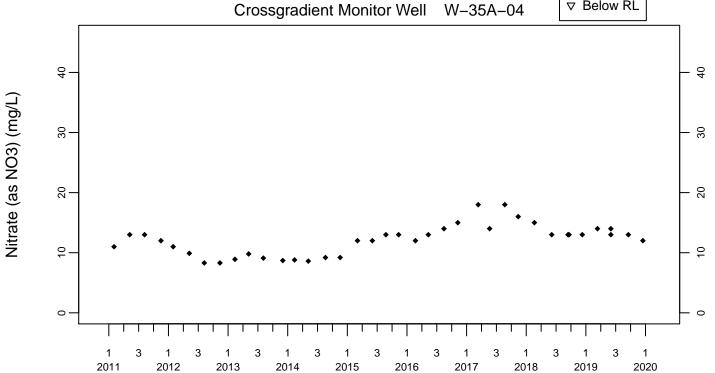




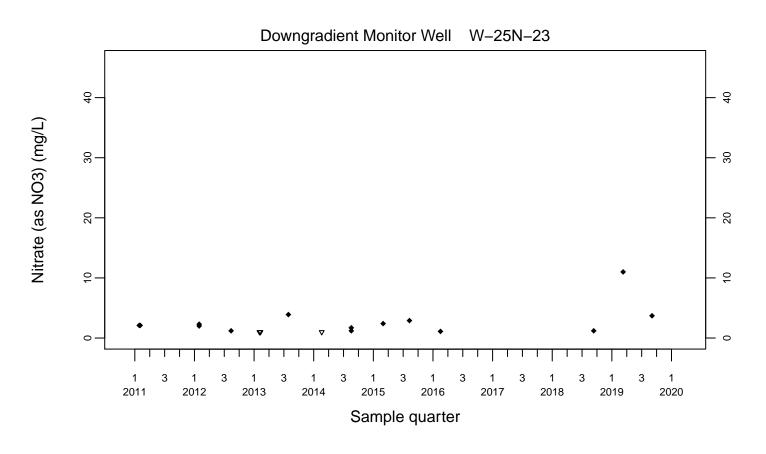
Sample quarter



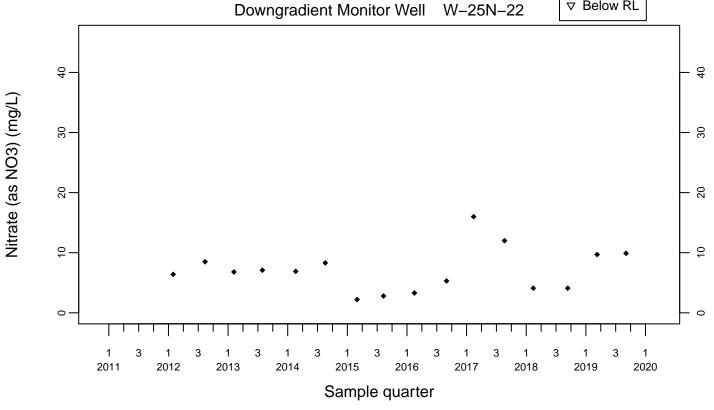


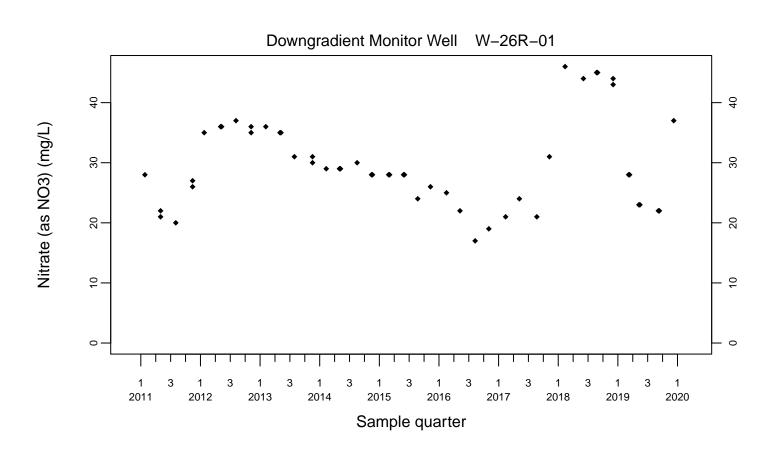


Sample quarter

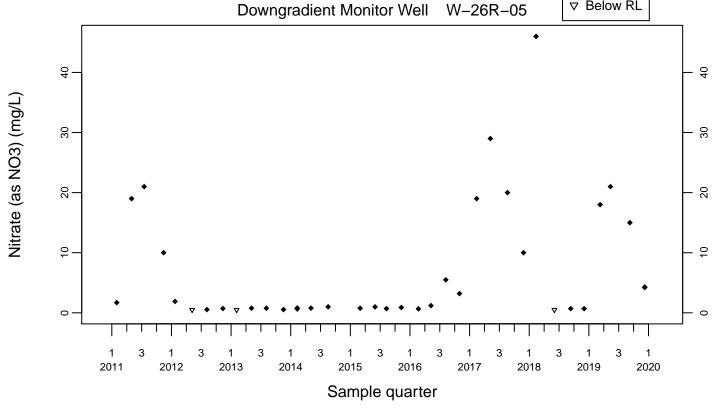


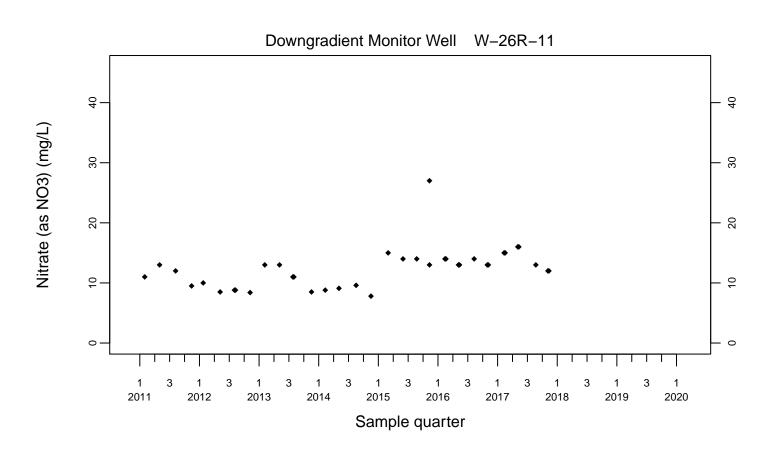




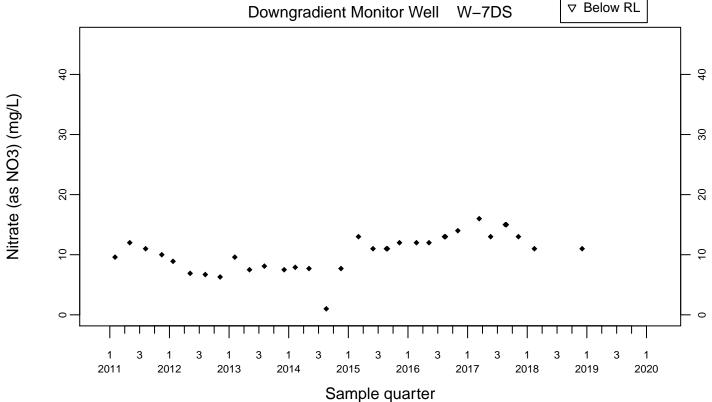








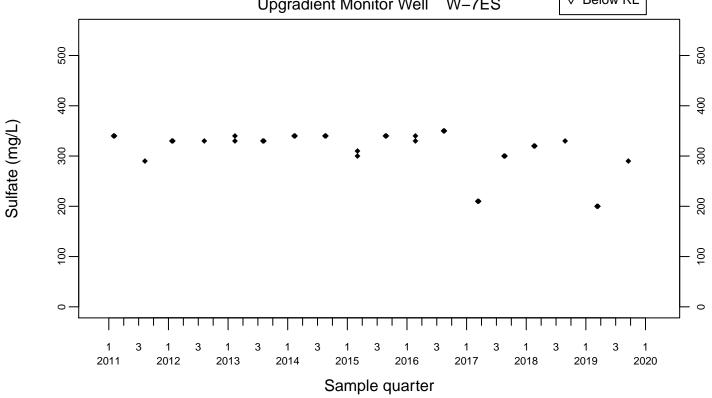


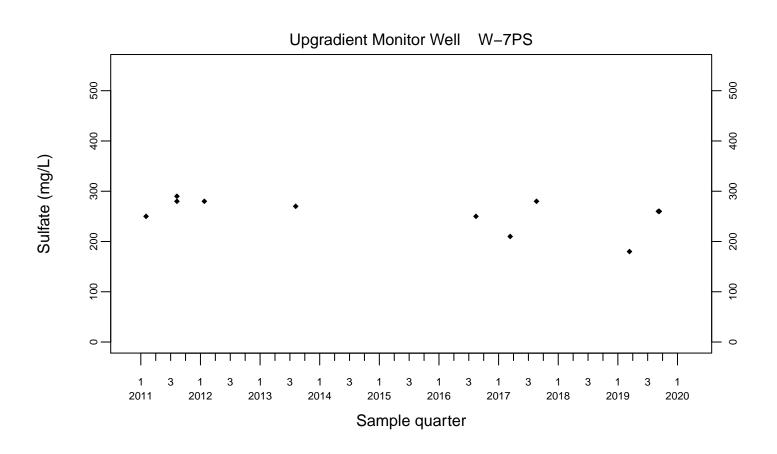


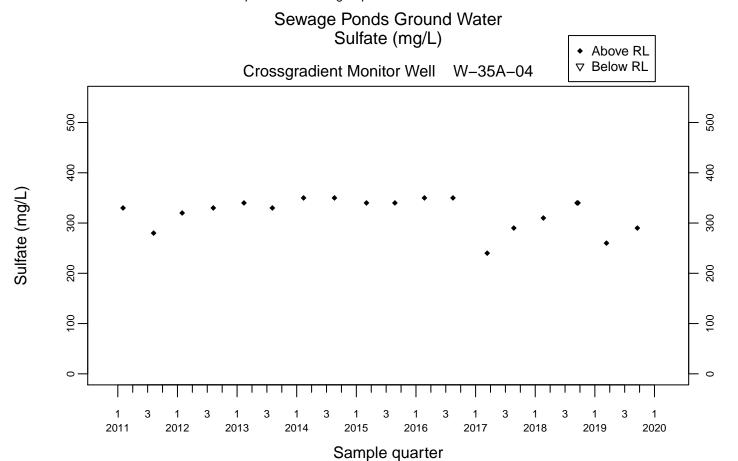
Sewage Ponds Ground Water Sulfate (mg/L)

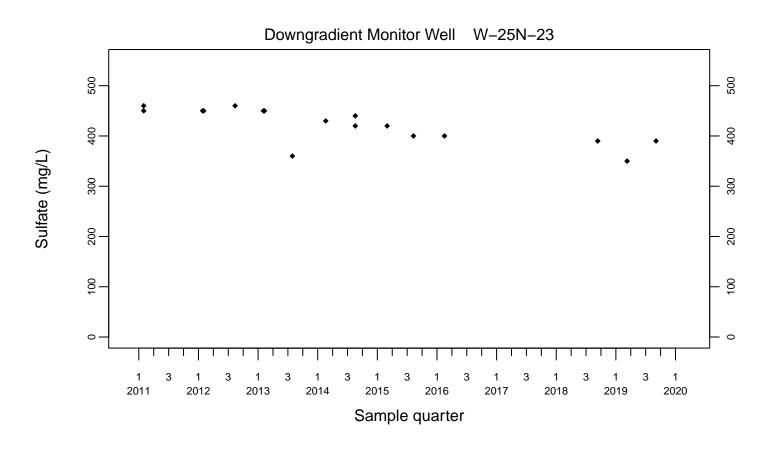


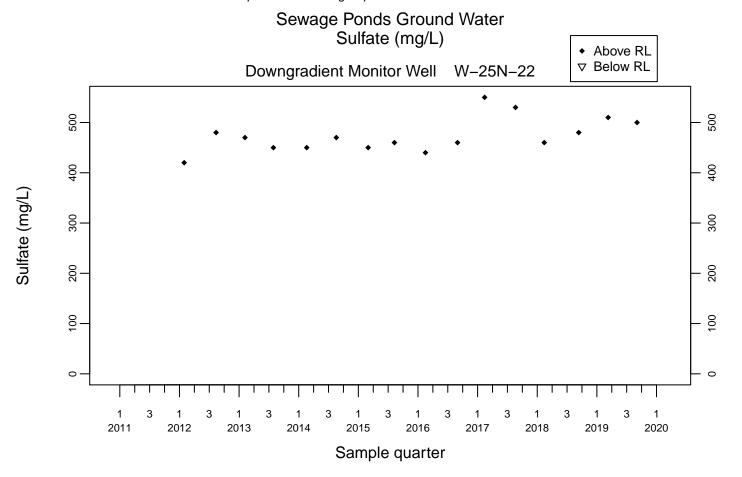
 Above RL

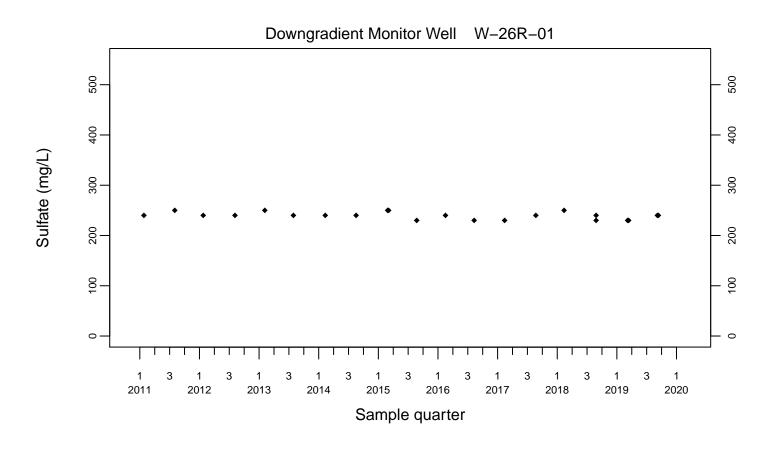


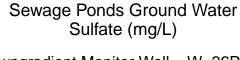


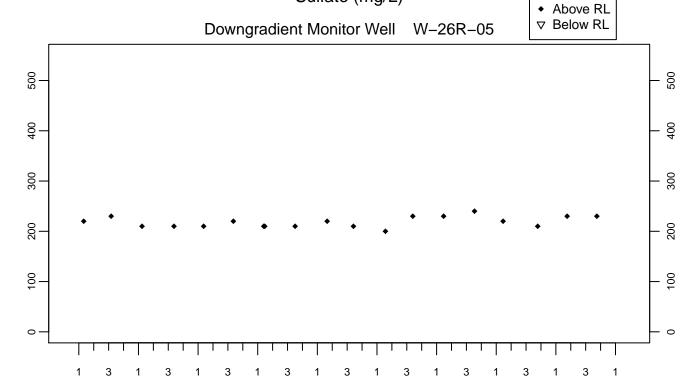






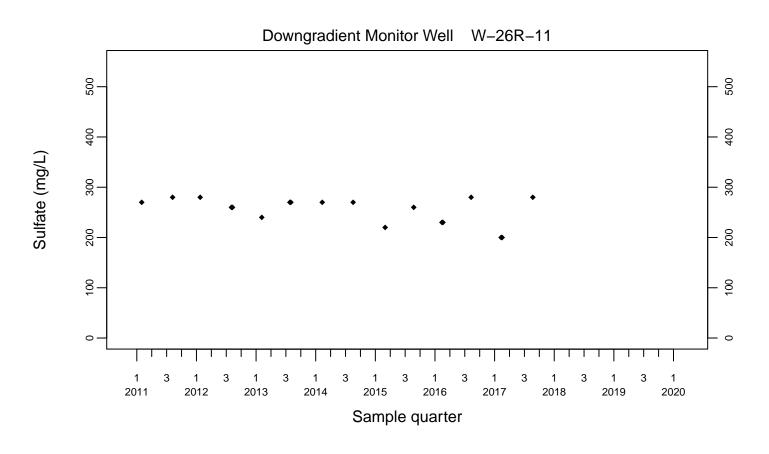


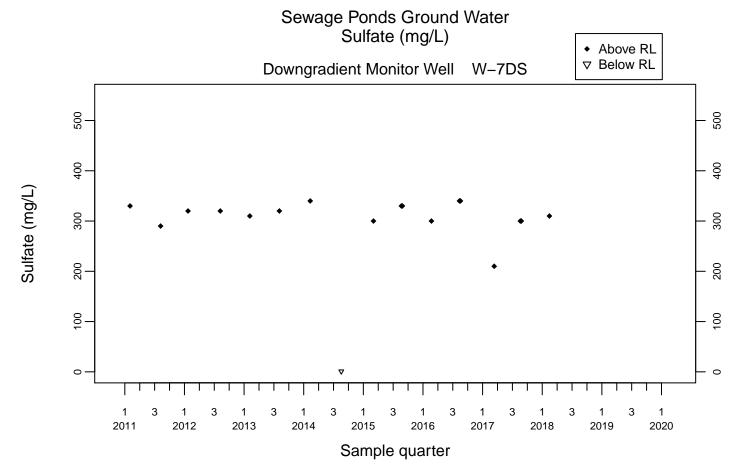


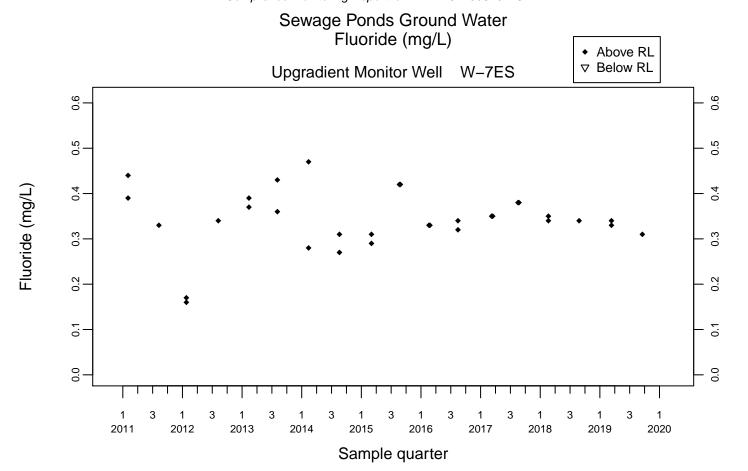


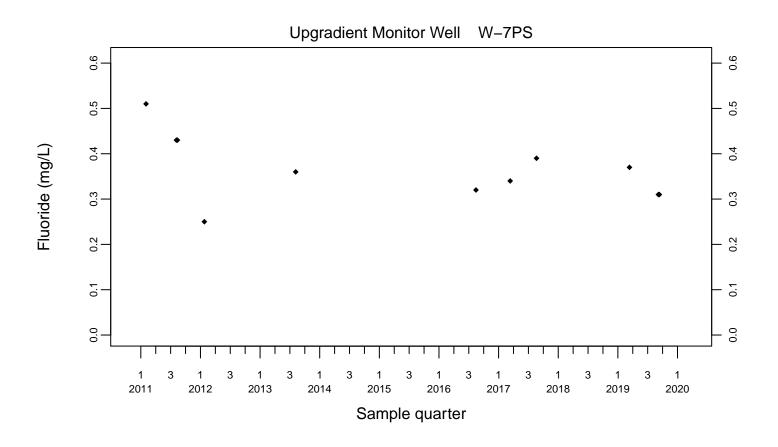
Sample quarter

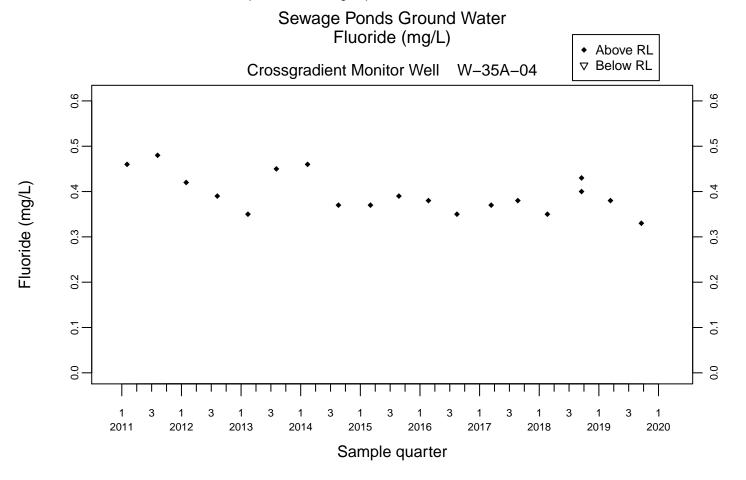
Sulfate (mg/L)

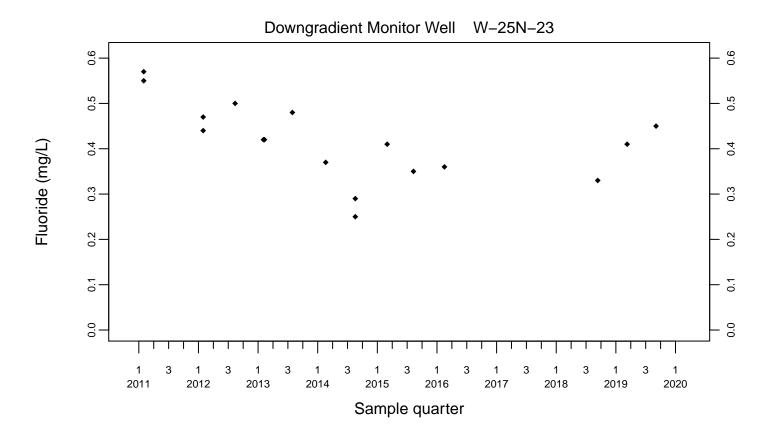


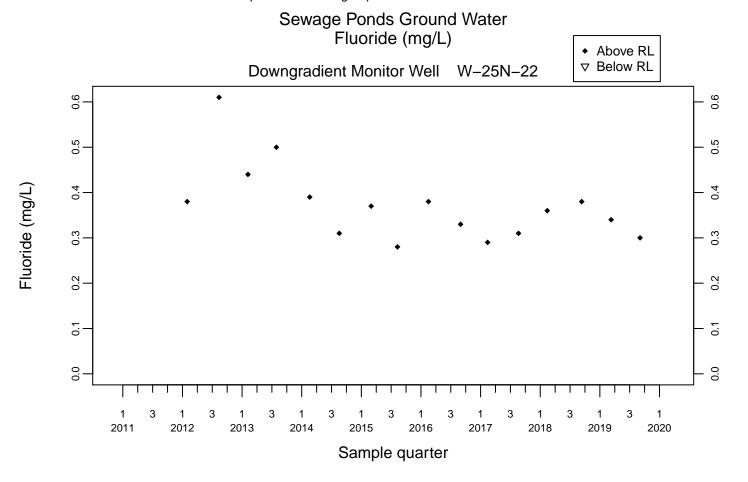


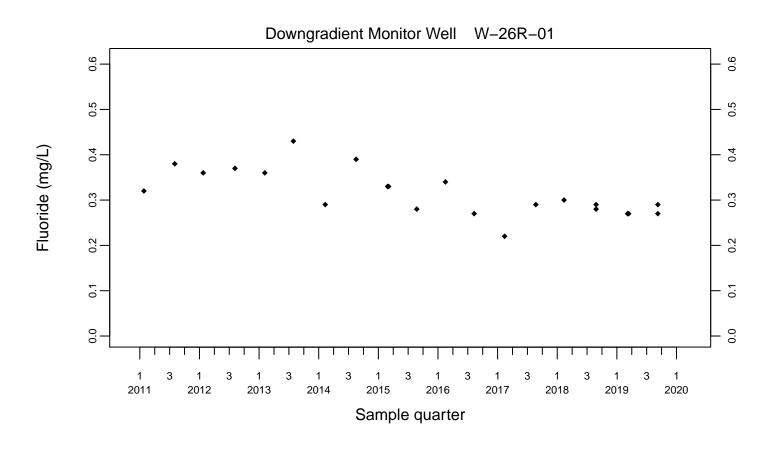


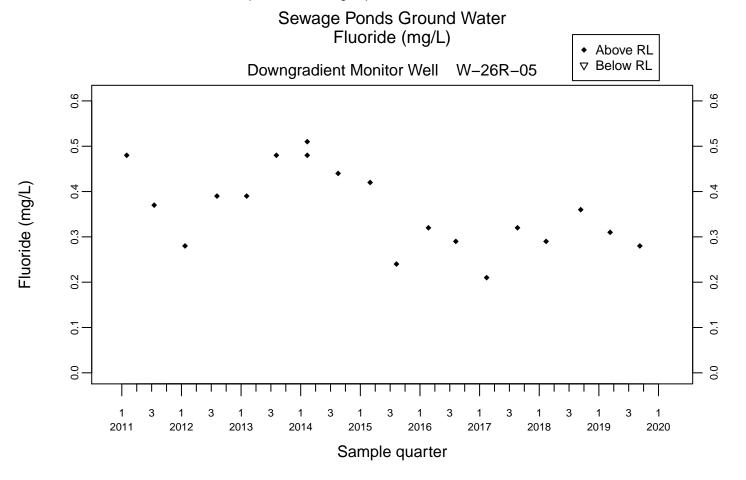


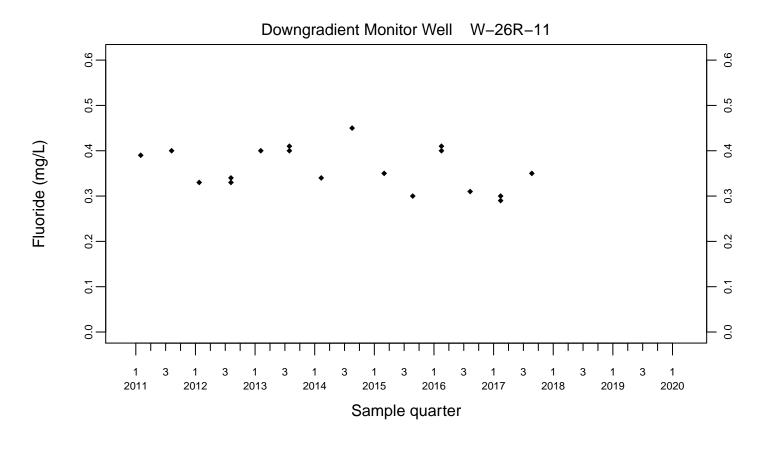


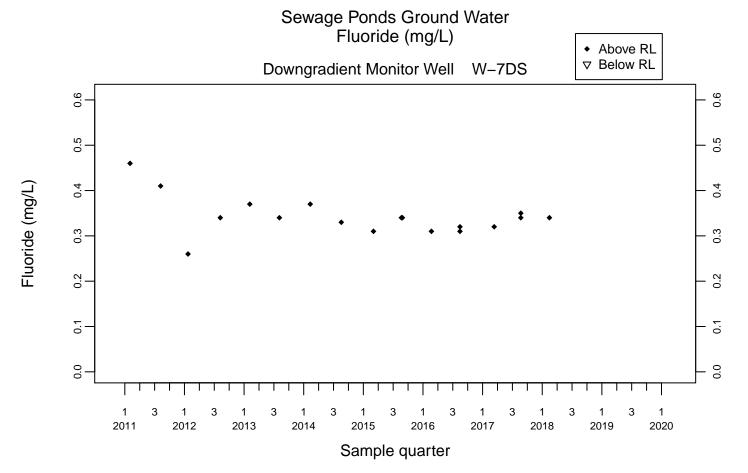


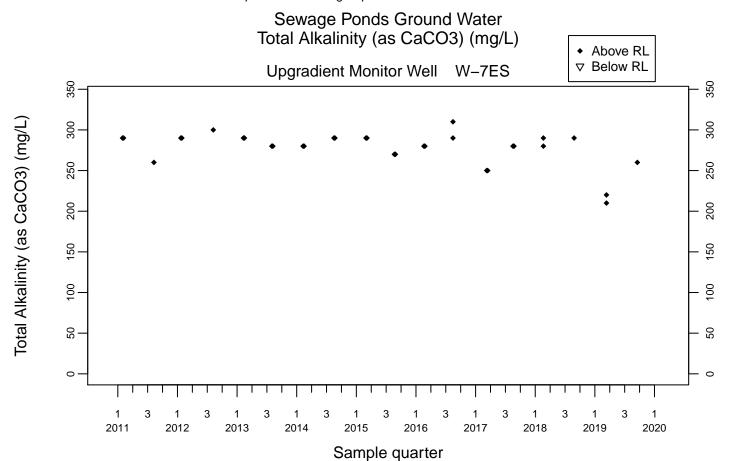


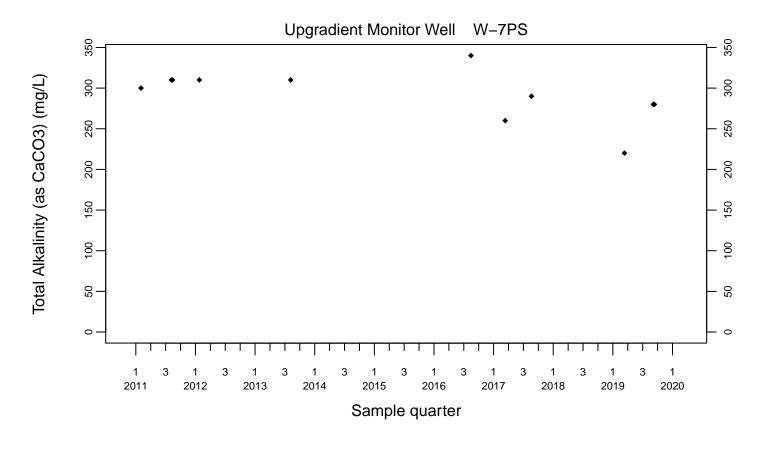


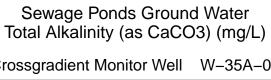


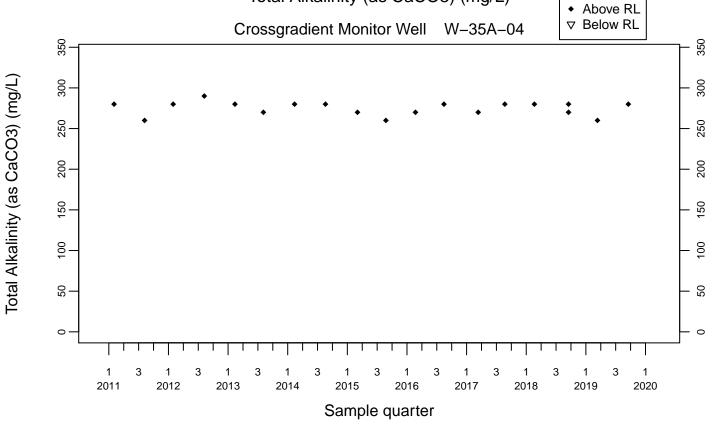


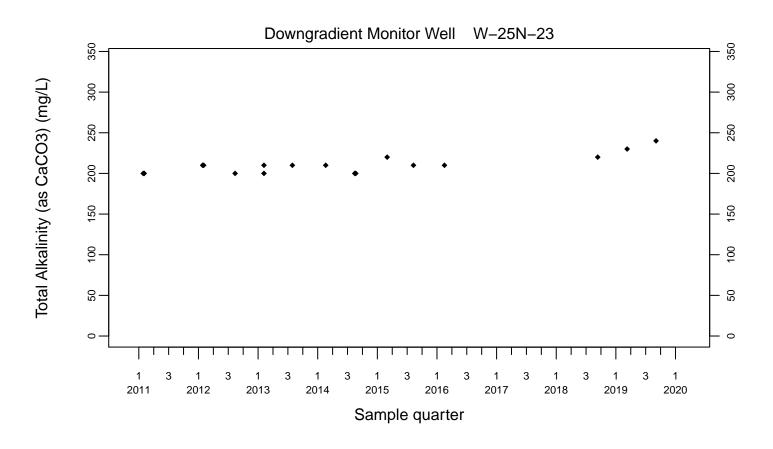


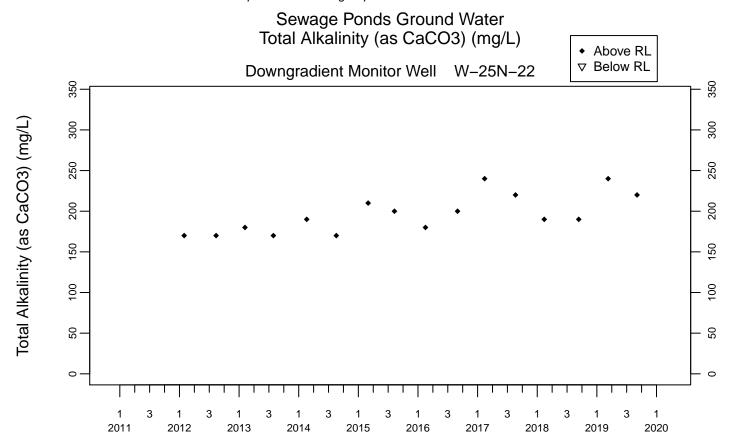




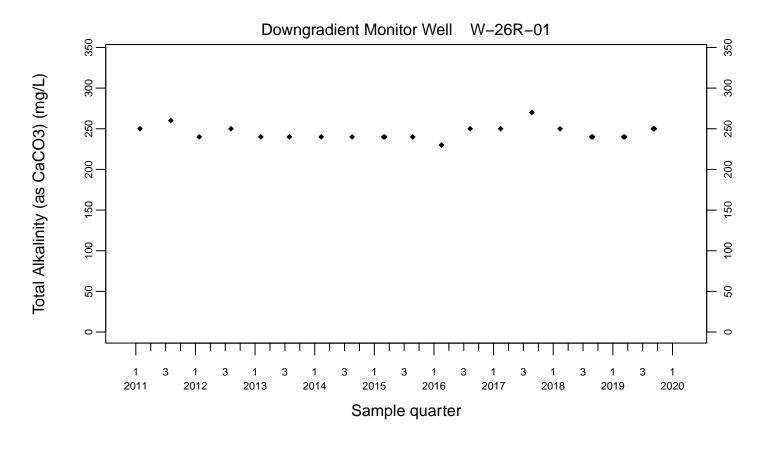


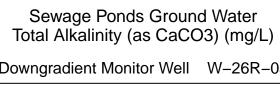


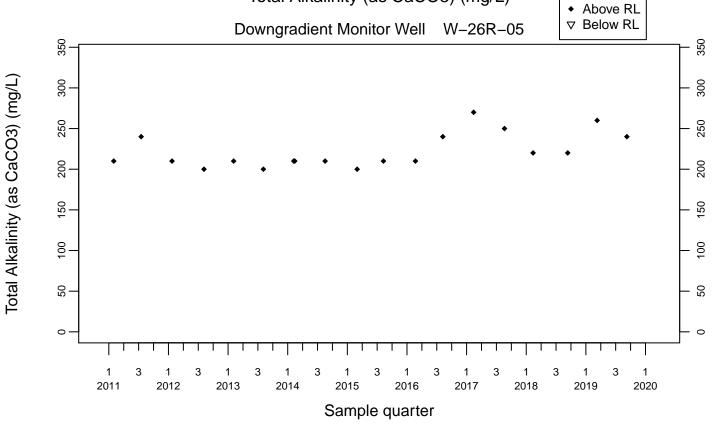


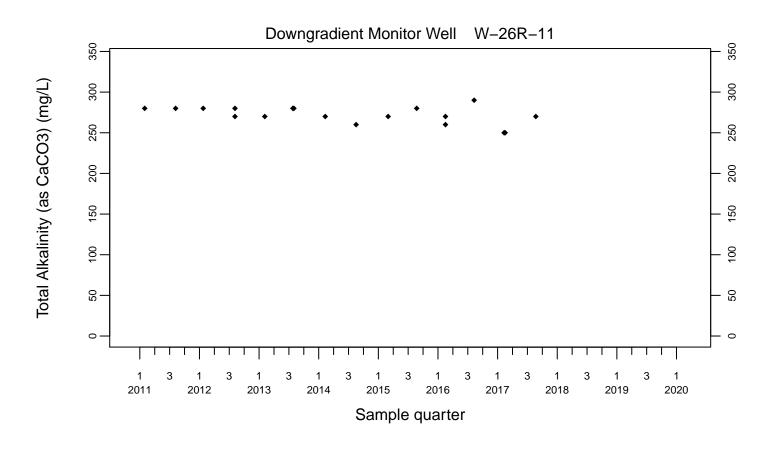


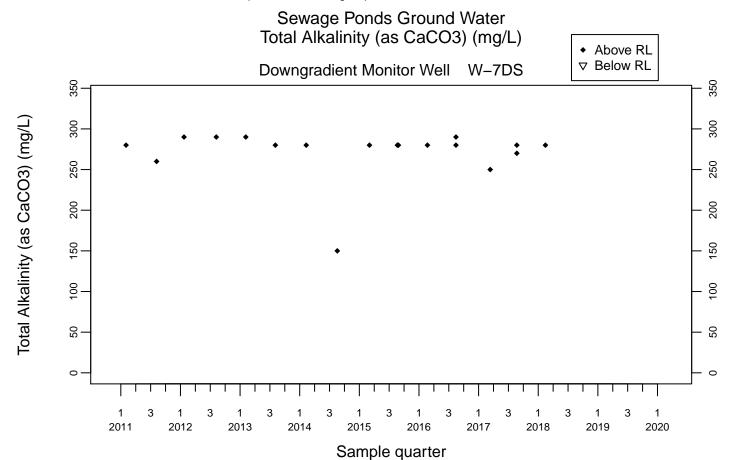
Sample quarter

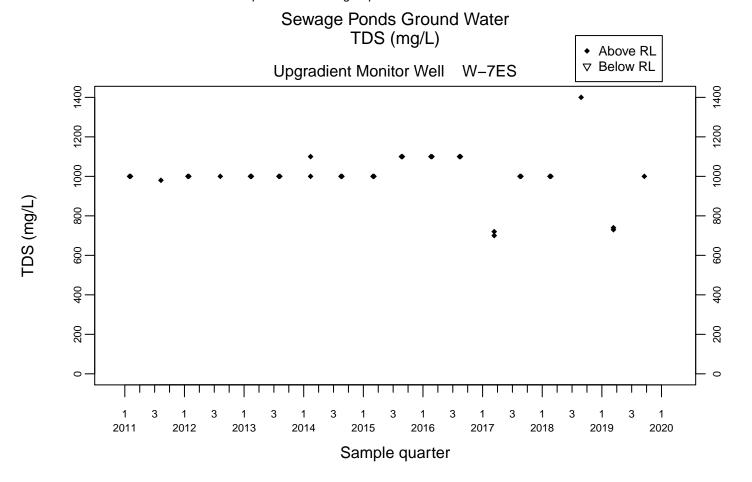


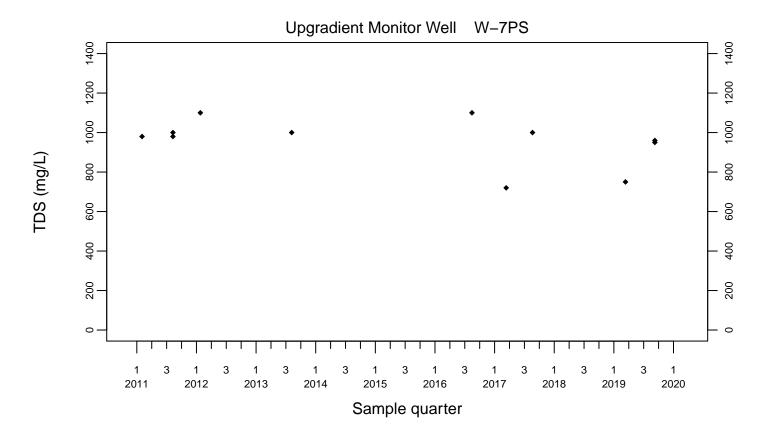


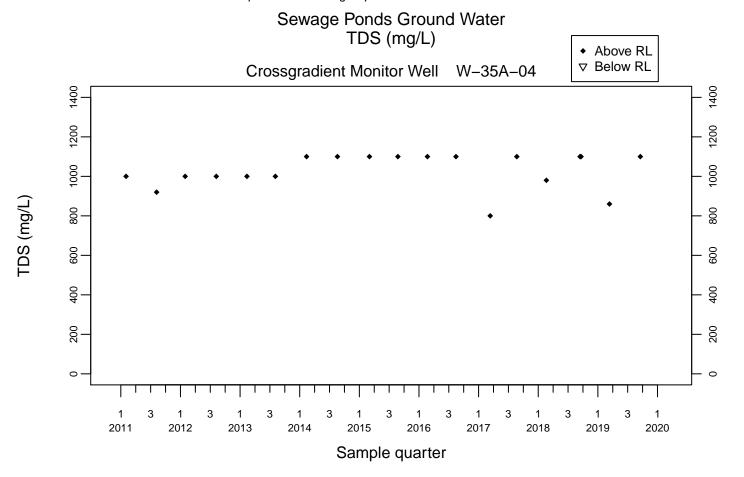


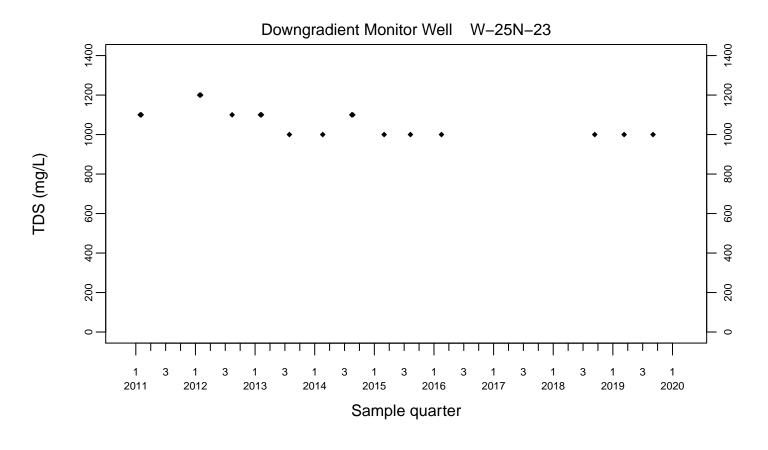


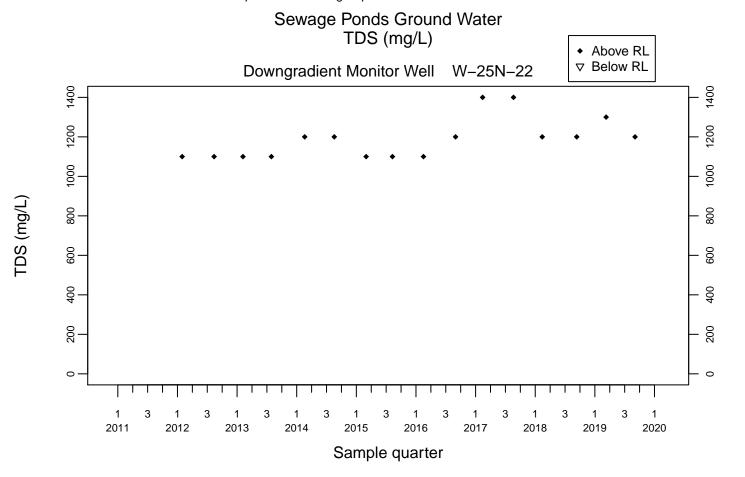


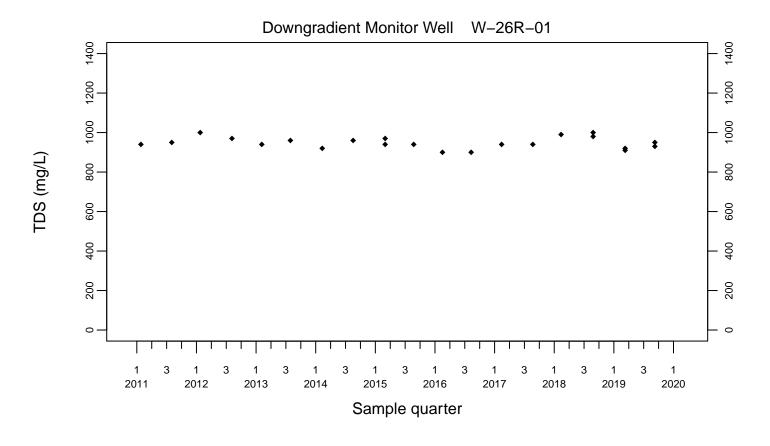


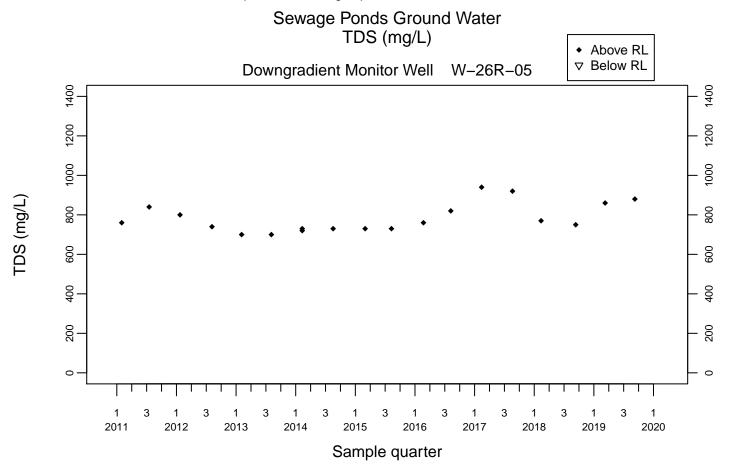


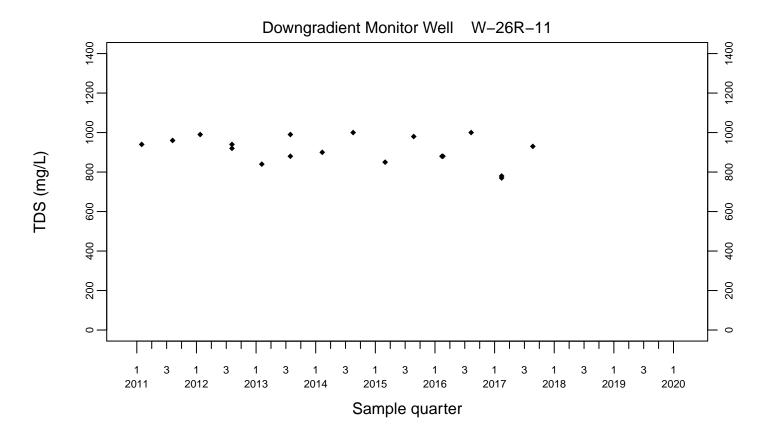


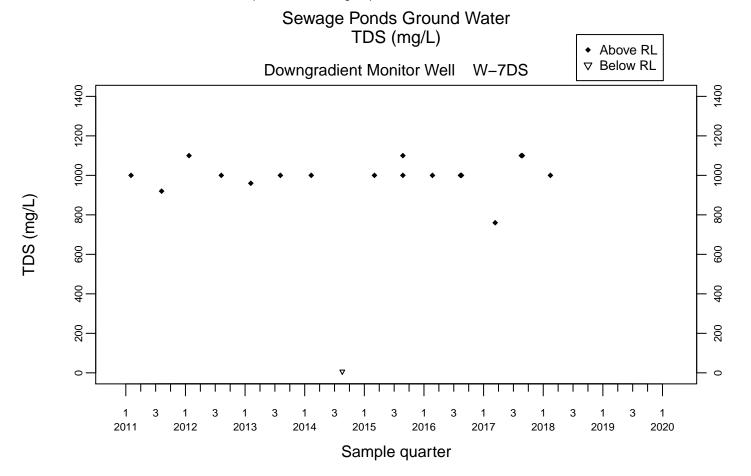




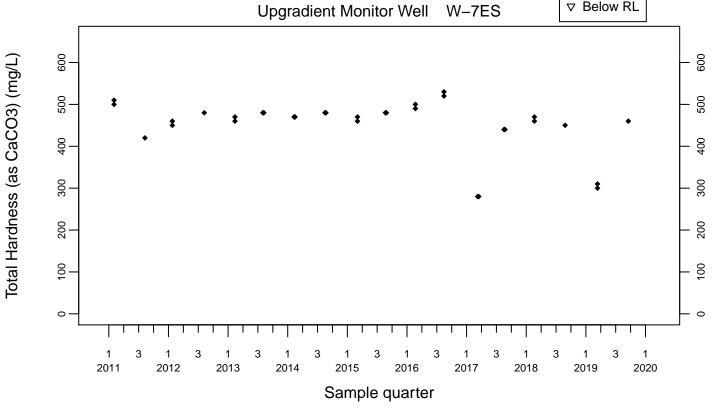


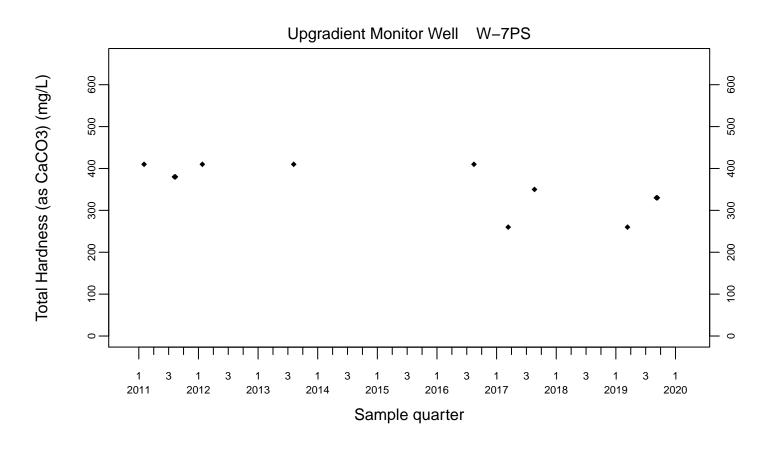




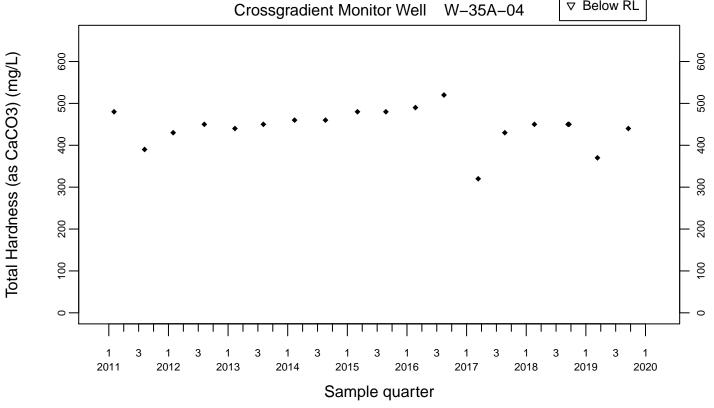


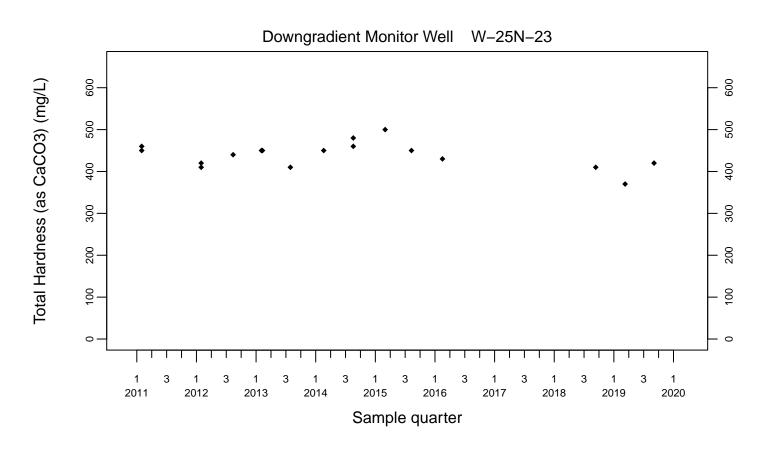




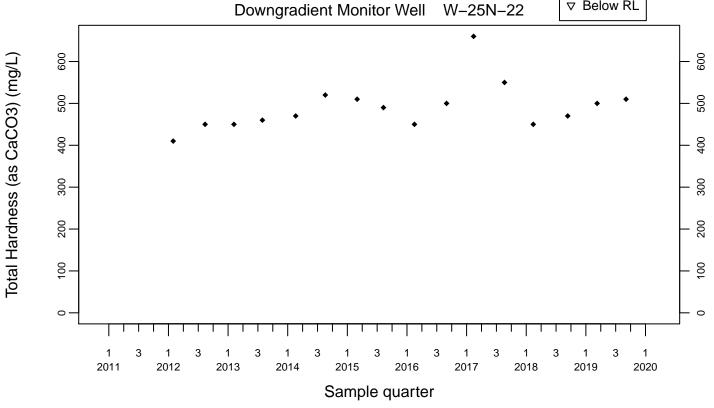


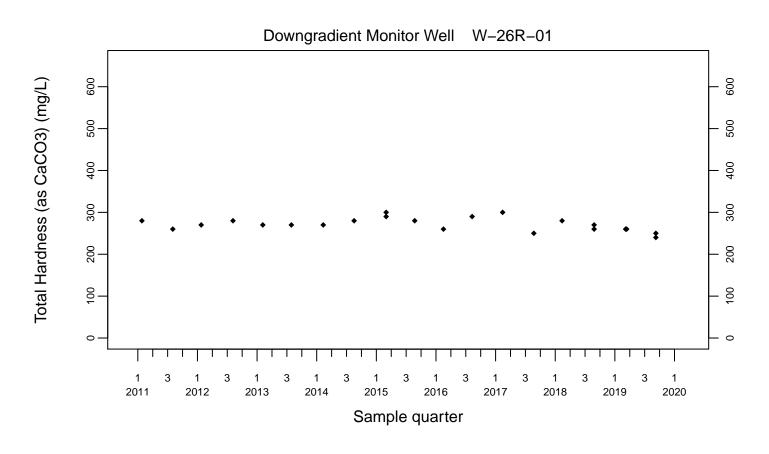




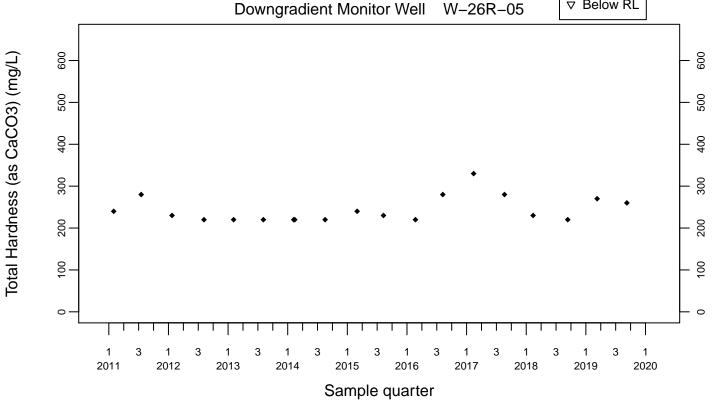


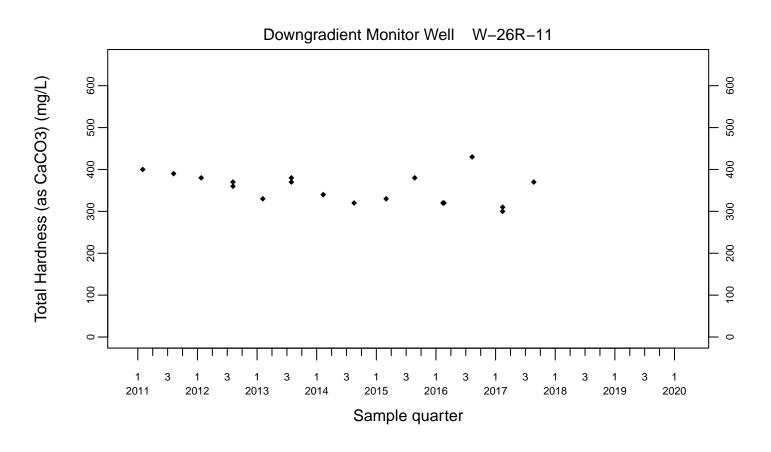




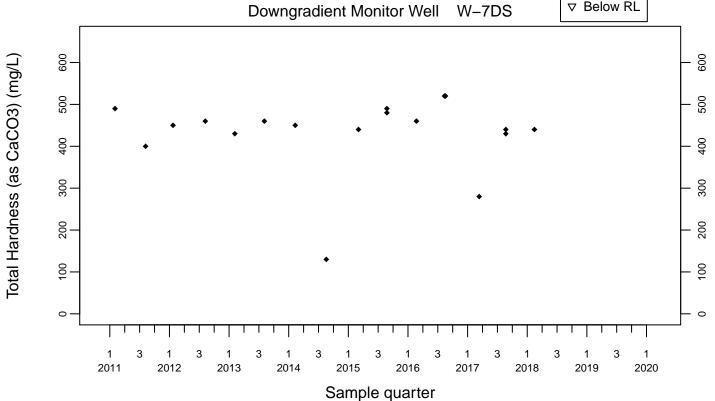




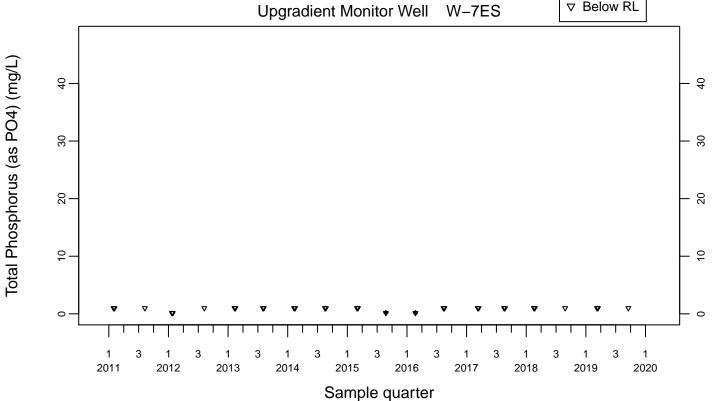


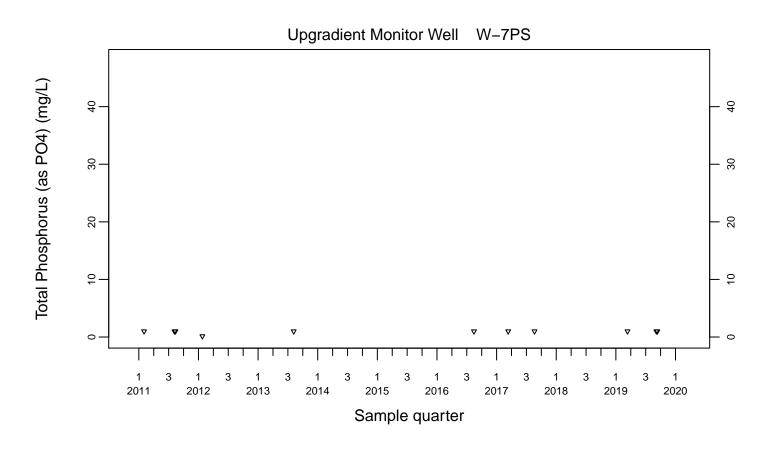




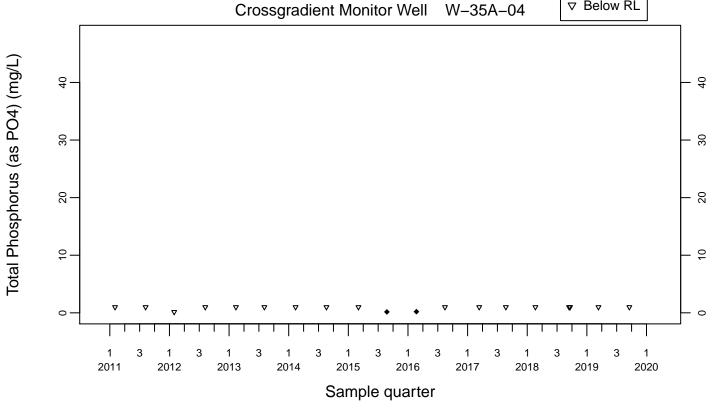


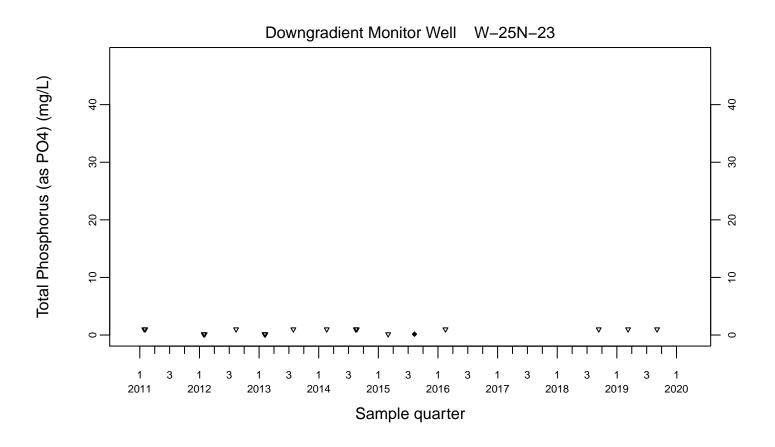
◆ Above RL▽ Below RL



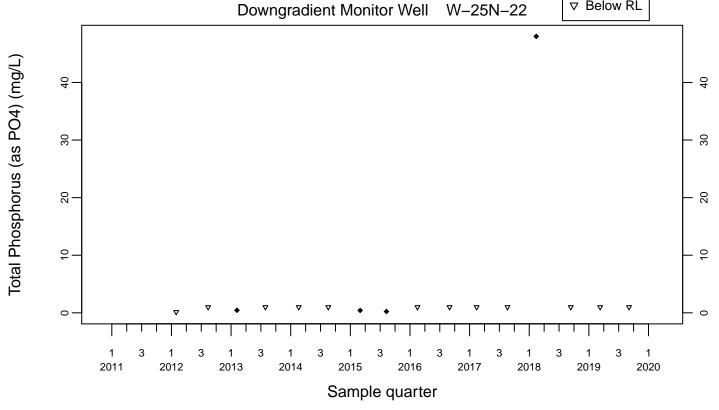


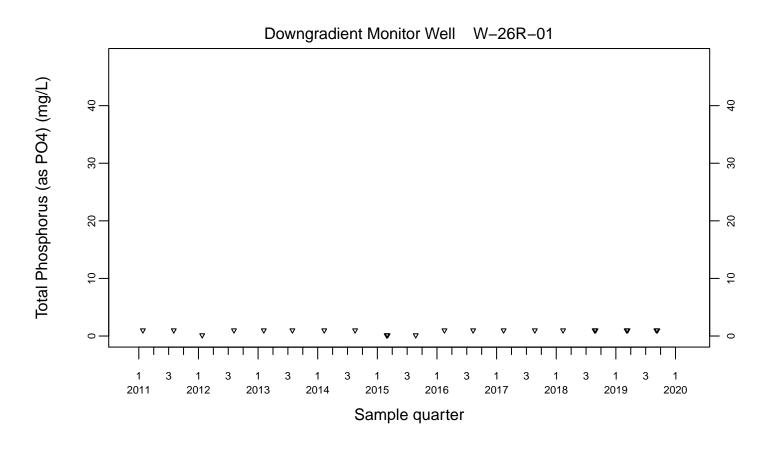
Above RLBelow RL



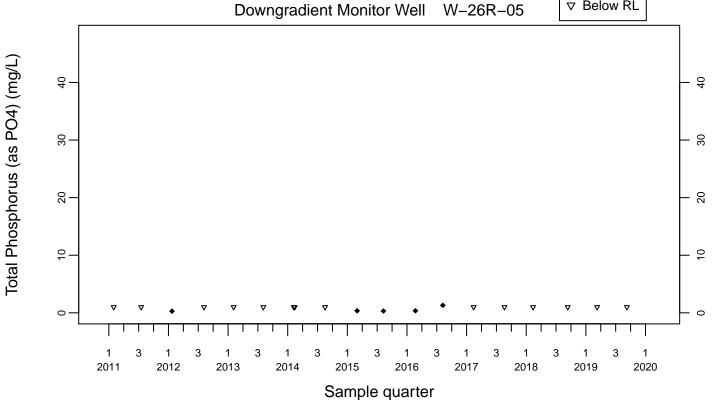


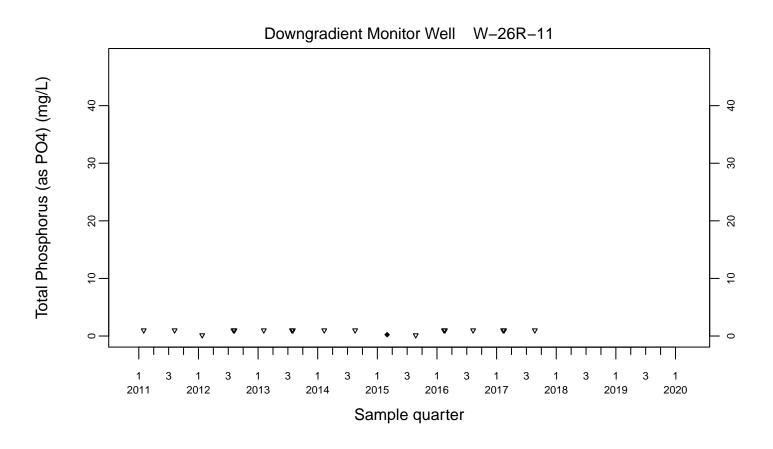
Above RLBelow RL



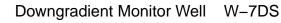


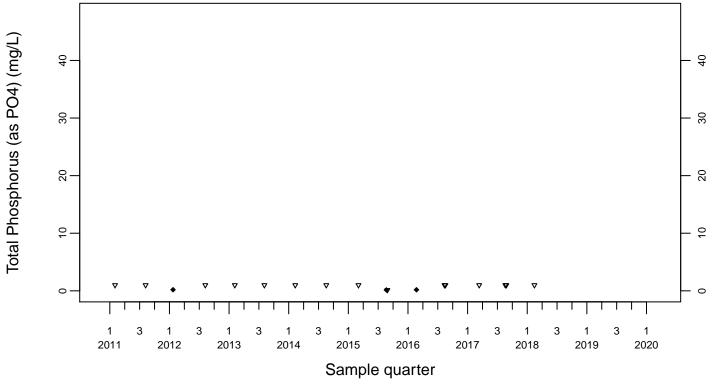
Above RLBelow RL







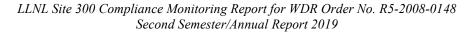




Appendix B

Cooling Tower Network

Cooling Tower Blowdown Effluent Monitoring Network with Discharges to Percolation Pits (Bldgs. 801, 817A, 826, 827A, and 851) and Cooling Tower Percolation Pit Inspection Forms



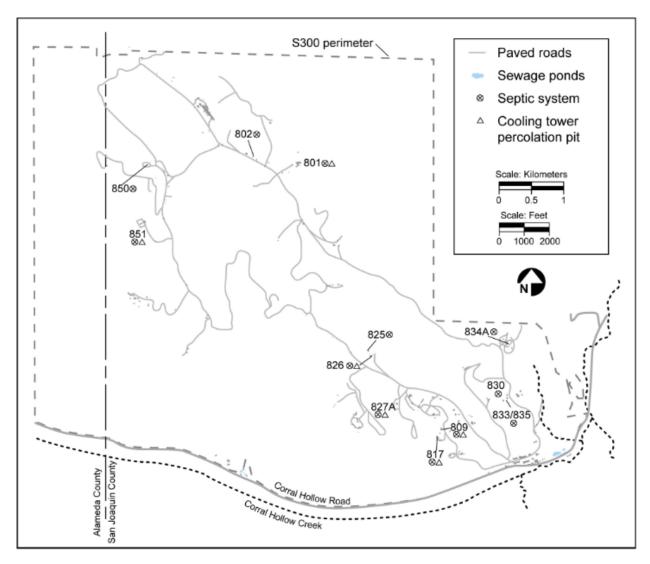


Figure B-1. Location of Site 300 cooling towers.

Table B-1. Site 300 cooling tower wastewater monitoring network 2019 sodium and anions data summary.

Building/Location	Date	Sodium (mg/L)	Chloride (mg/L)	Nitrate (as NO ₃) (mg/L)	Sulfate (mg/L)	Fluoride (mg/L)	Bromide (mg/L)
2 901 A CT01 TW	May 22	2200	940	5.3	1700	2.5	46
3-801ACT01-TW	Oct 22	1600	580	3.0	1000	1.1	33
2 017 A CT01 TW	May 21	780	320	<2.5	610	0.56	6.0
3-817ACT01-TW	Oct 22	570	210	<1	380	0.31	17
2 02 (F) (F) (F)	May 21	810	300	<2.5	580	0.68	2.5
3-826FCT01-TW	Oct 22	380	130	< 0.5	250	0.25	4.6
2 927 A CT01 TW	May 21	720	290	<2.5	520	0.45	18
3-827ACT01-TW	Oct 22	1200	460	1.5	870	0.86	12
2 027 4 0702 731	May 21	610	240	1.0	450	0.32	30
3-827ACT02-TW	Oct 22	1300	480	1.5	930	0.94	9.1
2 051DECT02 TW	May 22	1300	540	<2.5	930	1.3	21
3-851BFCT03-TW	Oct 22	1500	630	<2.5	1100	1.1	24

Table B-2. Site 300 cooling tower wastewater monitoring network 2019 metals analysis data summary.

Analyte (μg/L)	Quarter	3-801ACT01- TW	3-817ACT01- TW	3-826FCT01- TW	3-827ACT01- TW	3-827ACT02- TW	3-851BFCT03- TW
A.1 ·	Q2	<250	< 50	< 50	< 50	< 50	<250
Aluminum	Q4	<250	< 50	< 50	<250	<250	<250
	Q2	13	3.9	2.6	13	20	10
Arsenic	Q4	29	18	<2	9.1	5.7	10
D :-	Q2	<120	<25	27	34	36	<120
Barium	Q4	57	34	<25	36	39	48
D	Q2	8600	3200	3700	2900	2300	5000
Boron	Q4	5500	2200	1500	4600	4800	5500
C 1 :-	Q2	<250	< 50	< 50	< 50	< 50	<250
Cadmium	Q4	< 50	< 50	< 50	< 50	< 50	< 50
6.1.5	Q2	80000	25000	22000	28000	23000	57000
Calcium	Q4	56000	22000	14000	46000	49000	55000
CI.	Q2	<5	<1	<1	<1	<1	<5
Chromium	Q4	<1	<1	<1	<1	<1	1.4
Hexavalent	Q2	1.8	1.2	<1	<1	<1	3.0
Chromium	Q4	2.0	<1	<1	1.7	1.9	4.4
C	Q2	44	17	86	6.6	20	20
Copper	Q4	16	28	5.5	6.7	7.3	16
т	Q2	860	290	570	270	170	880
Iron	Q4	840	350	290	610	650	1100
T 1	Q2	<25	<5	<5	<5	<5	<25
Lead	Q4	<5	<5	<5	<5	<5	<5
M	Q2	<2500	< 500	750	< 500	< 500	<2500
Magnesium	Q4	<2500	< 500	< 500	<2500	<2500	<2500
M	Q2	<150	<30	<30	<30	<30	<150
Manganese	Q4	<150	<30	<30	<150	<150	<150
M	Q2	0.24	< 0.2	< 0.2	< 0.2	< 0.2	0.21
Mercury	Q4	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
M 1-1-1	Q2	150	59	64	48	39	<120
Molybdenum	Q4	<120	44	29	<120	<120	<120
NT 1- 1	Q2	<10	<2	<2	<2	<2	<10
Nickel	Q4	<2	<2	<2	<2	<2	<2
D 4	Q2	86000	35000	42000	42000	37000	50000
Potassium	Q4	62000	26000	15000	50000	49000	56000
G 1 .	Q2	40	11	5.1	45	67	31
Selenium	Q4	100	58	7.0	31	18	34
C:1	Q2	< 50	<10	<10	<10	<10	<50
Silver	Q4	<10	<10	<10	<10	<10	<10
W1'	Q2	<100	<20	<20	<20	<20	<100
Vanadium	Q4	<20	<20	<20	<20	<20	<20
7:	Q2	120	46	120	98	210	<100
Zinc	Q4	67	140	<20	20	35	150

 $Table \ B-3. \ Site \ 300 \ cooling \ tower \ was tewater \ monitoring \ network \ 2019 \ physical \ characteristics \ data \ summary.$

Well/ Location	Date	pН	Specific Conductance µmhos/cm	Total Alkalinity (as CaCO ₃) mg/L	Total dissolved solids mg/L	Total Hardness (as CaCO ₃) mg/L	Total Phosphorus (as PO ₄) mg/L
3-801ACT01-TW	May 22	9.5	9130	2000	6900	200	14
3-801AC101-1 W	Oct 22	9.4	6210	1300	4300	140	18
2 917 A CTO1 TW	May 21	9.1	3480	780	2600	64	4.4
3-817ACT01-TW	Oct 22	9.0	2430	490	1800	56	16
2 92/ECT01 TW	May 21	9.2	3550	930	2700	59	3.9
3-826FCT01-TW	Oct 22	8.9	1650	340	1100	35	2.7
2 927 A CTO 1 TW	May 21	9.3	3160	720	2500	71	26
3-827ACT01-TW	Oct 22	9.5	5080	1100	3600	120	12
2 927 4 СТО2 ТУ	May 21	9.0	2700	580	2100	57	29
3-827ACT02-TW	Oct 22	9.4	5370	1200	3700	120	7.1
2 051DECT02 TW	May 22	9.3	5500	1300	4200	140	12
3-851BFCT03-TW	Oct 22	9.4	6480	1400	4400	140	9.5

Table B-4. Site 300 cooling tower wastewater monitoring network 2019 QA data summary.

Constituent	Units	3-801ACT01- TW	3-801ACT01- TW	3-817ACT01- TW	3-817ACT01- TW
		May 22	May 22	Oct 22	Oct 22
		Routine	Duplicate	Routine	Duplicate
pН	Units	9.5	9.5	9.0	9.0
Specific Conductance	μmhos/cm	9130	9120	2430	2430
Aluminum	μg/L	<250	<250	< 50	<50
Arsenic	μg/L	13	<20	18	15
Barium	μg/L	<120	<120	34	32
Boron	μg/L	8600	8800	2200	2200
Cadmium	μg/L	<250	<250	<50	<50
Calcium	μg/L	80000	81000	22000	22000
Chromium	μg/L	<5	<5	<1	<1
Hexavalent Chromium	μg/L	1.8	1.9	<1	<1
Copper	μg/L	44	46	28	29
Iron	μg/L	860	1100	350	340
Lead	μg/L	<25	<25	<5	<5
Magnesium	μg/L	<2500	<2500	< 500	< 500
Manganese	μg/L	<150	<150	<30	<30
Mercury	μg/L	0.24	0.23	< 0.2	<0.2
Molybdenum	μg/L	150	180	44	44
Nickel	μg/L	<10	<10	<2	<2
Potassium	μg/L	86000	89000	26000	26000
Selenium	μg/L	40	39	58	53
Silver	μg/L	<50	<50	<10	<10
Vanadium	μg/L	<100	<100	<20	<20
Zinc	μg/L	120	130	140	160
Sodium	mg/L	2200	2200	570	580
Chloride	mg/L	940	940	210	210
Nitrate (as NO ₃)	mg/L	5.3	5.4	<1	<1
Sulfate	mg/L	1700	1700	380	390
Fluoride	mg/L	2.5	2.4	0.31	0.35
Bromide	mg/L	46	46	17	18
Total Alkalinity (as CaCO ₃)	mg/L	2000	2000	490	490
Total dissolved solids (TDS)	mg/L	6900	7000	1800	1700
Total Hardness (as CaCO ₃)	mg/L	200	200	56	56
Total Phosphorus (as PO44)	mg/L	14	15	16	16

FIELD TRACKING FORM Semi-Annual SITE 300 Cooling Towers

Special	Instructions:
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Should be sampled in early April and October.
See back of form for additional access information

LAB	CoC#	Ship It #
BC Labs	81186	250440

pH meter calibrated on: 20/22/19
Specific Conductance meter calibrated on: 20/22/19

Sample Date: 10/22/19

			Field Mea	asurments	8.88	BC	Labs		Comments	
Location Indentifier	Location DUP taken - year/quarter	Sample Time	Initials	PH	Specific Conductance	S3METALS 500mL Poly	S3ANIONS 500mL Poly	S3WETCHEM 1000mL Poly	E300.0/BR 250ml Poly	
3-801ACT01-TW	2019/2nd	1020	KB	9.63	6.28 ms	2		-	-	
3-817ACT01-TW	2019/4th	0900	KR	8.93	2,59 ms	-	-	-	~	
3-825ACT01-TW	2015/2nd									825 off line
3-826FCT01-TW	2017/4th	0915	KB	8.98	1430 MS	_	/	-		
3-827ACT01-TW	2014/4TH	0930	145	9.61	5.12 ms	~	-		~	
3-827ACT02-TW	2018/4th	0940	143	9.54	5.08ms	-			V	
3-851BFCT03-TW	2018/2nd	1000	148	9,49	6.31ms	1		/	~	
Duplicate of 3-817ACT										
3-B9900-01-TW	0 9	900	143			~	/	/	~	

Chain of Custody

EFA Data Management Team Lawrence Livermore National Laboratory P.O. Box 808 L-627 Livermore, CA 94551

Work Authorized	By: EFA	
TRR Approver: D	ELLA BURRUSS	
Project Info:		

Access/COC #:81186	
Document Control #:81186	_
Requester/LLNL Analyst: A. Chan	_
Organization / Sampler: EFA / brunckhorst?	_

PCI Project #: 44497
PCI Task #: ES&H Bills and Taxes
Email: efa-dmt@llnl.gov

DMT Additional Copies:

Analytical Lab: BCLABS-BAK

TAT: 20d

Analytical Lab Log #:

Project/Network: COOLTOWER
ShipIt Release #: 250 440

It Release #: 250940 Add'I Email:

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-801ACT01-01-TW	10/22/2019 10:20	TW	ggs Parer	1_1_	COOLTOWER	E300.0	BR	- Charles and the second
3-801ACT01-01-TW	10/22/2019 10:20	TW	P	65 A	COOLTOWER	S3ANIONS	ALL	
3-801ACT01-01-TW	10/22/2019 10:20	TW	Р	0	COOLTOWER	S3METALS	ALL	
3-801ACT01-01-TW	10/22/2019 10:20	TW	Р	1,075	COOLTOWER	S3METALS	TOTAL	iakin a kasa
3-801ACT01-01-TW	10/22/2019 10:20	TW	Р	1	COOLTOWER	S3WETCHEM	ALL	1-22
3-817ACT01-01-TW	10/22/2019 09:00	TW	Р	1	COOLTOWER	E300.0	BR	Maria Land
3-817ACT01-01-TW	10/22/2019 09:00	III TW	Р	1	COOLTOWER	S3ANIONS	ALL	22.47
3-817ACT01-01-TW	10/22/2019 09:00	TW	Р	0.4	COOLTOWER	S3METALS	ALL	
3-817ACT01-01-TW	10/22/2019 09:00	TW	Р	4 8025	COOLTOWER	S3METALS	TOTAL	
3-817ACT01-01-TW	10/22/2019 09:00	TW	Sem Power		COOLTOWER	S3WETCHEM	ALL	
3-B9900-01-TW	10/22/2019 09:00	TW	P	BOOK PT	COOLTOWER	E300.0	BR	A CONTROL OF THE PARTY OF THE P
3-B9900-01-TW	10/22/2019 09:00	TW	Р	1	COOLTOWER	S3ANIONS	ALL	*****
3-B9900-01-TW	10/22/2019 09:00	TW	Р	0	COOLTOWER	S3METALS	ALL	
3-B9900-01-TW	10/22/2019 09:00	TW	Р	1	COOLTOWER	S3METALS	TOTAL	-
3-B9900-01-TW	10/22/2019 09:00	TW	Р	1	COOLTOWER	S3WETCHEM	ALL	
3-826FCT01-01-TW	10/22/2019 09:15	TW	Р	1	COOLTOWER	E300.0	BR	
3-826FCT01-01-TW	10/22/2019 09:15	TW	Р	1	COOLTOWER	S3ANIONS	ALL	
3-826FCT01-01-TW	10/22/2019 09:15	TW	Р	0	COOLTOWER	S3METALS	ALL	
3-826FCT01-01-TW	10/22/2019 09:15	TW	Р	1	COOLTOWER	S3METALS	TOTAL	
3-826FCT01-01-TW	10/22/2019 09:15	TW	Р	1	COOLTOWER	S3WETCHEM	ALL	
3-827ACT01-01-TW	10/22/2019 09:30	TW	Р	1	COOLTOWER	E300.0	BR	
3-827ACT01-01-TW	10/22/2019 09:30	TW	Р	1	COOLTOWER	S3ANIONS	ALL	
3-827ACT01-01-TW	10/22/2019 09:30	TW	Р	0	COOLTOWER	S3METALS	ALL	O.
3-827ACT01-01-TW	10/22/2019 09:30	TW	Р	1	COOLTOWER	S3METALS	TOTAL	
3-827ACT01-01-TW	10/22/2019 09:30	TW	Р	1	COOLTOWER	S3WETCHEM	ALL	
3-827ACT02-01-TW	10/22/2019 09:40	TW	Р	1	COOLTOWER	E300.0	BR	
3-827ACT02-01-TW	10/22/2019 09:40	TW	Р	1	COOLTOWER	S3ANIONS	ALL	

Relinquished Signature	Company	Date	Time	Received Signature	Company	Date	Time
1 /lies / South 15	LLNL/EFA	10/22/2019	1530	2 . Hay Boson	Bolah	10:22-19	1630
2				3			7.6.2.
3				4			
4				5			

Revision Printed: 11/24/2015/13/04/05

Signature Order - 1: Sampler, 2: Courier, 3: Lab, 4: Analyst, 5: DMT

Page 1 of 2

Additional Instructions:

Chain of Custody

EFA Data Management Team Lawrence Livermore National Laboratory P.O. Box 808 L-627 Livermore, CA 94551

Vork Authorized By: EFA
RR Approver: DELLA BURRUSS
Project Info:

Access/COC #:81186	
Document Control #:81186	
Requester/LLNL Analyst: A Chan	

Organization / Sampler: EFA / brunckhorst2
PCI Project #: 44497

PCI Task #: ES&H Bills and Taxes
Email: efa-dmt@llnl.gov
DMT Additional Copies:

Analytical Lab Log #:

Project/Network: COOLTOWER

Shiplt Release #: 250 440

Add'I Email:

Analytical Lab: BCLABS-BAK

TAT: 20d

Additional Instructions:

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-827ACT02-01-TW	10/22/2019 09:40	TW	se Par	0	COOLTOWER	S3METALS	ALL	10-12-12-12-12-12-12-12-12-12-12-12-12-12-
3-827ACT02-01-TW	10/22/2019 09:40	TW	P		COOLTOWER	S3METALS	TOTAL	
3-827ACT02-01-TW	10/22/2019 09:40	TW	Р	1	COOLTOWER	S3WETCHEM	ALL	Teach
3-851BFCT03-01-TW	10/22/2019 10:00	TW	Р	235	COOLTOWER	E300.0	BR	1548 28 91
3-851BFCT03-01-TW	10/22/2019 10:00	TW	Р	1	COOLTOWER	S3ANIONS	ALL	超 期 建物
3-851BFCT03-01-TW	10/22/2019 10:00	TW	Р	0	COOLTOWER	S3METALS	ALL	
3-851BFCT03-01-TW	10/22/2019 10:00	₩TW	P	1	COOLTOWER	S3METALS	TOTAL	35.2
₹3-851BFCT03-01-TW	10/22/2019 10:00	TW	Р	1/8	COOLTOWER	S3WETCHEM	ALL	5475 2029,
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Relinquished Signature	Company	Date	Time	Received Signature	Company	Date	Time
1 /land 15 molo	LLNL/EFA	10/22/2019	1530	2 Harr Bogon	BCLAB	10.22-19	16 50
2				3			
3				4	•		
4				5			

Date	7-26-19 Inspector Walk	<u>./</u>	Building Number	801		
Instru descr	octions: Circle the appropriate response for expiritions and comments if necessary. Attach	each item belov additional pape	w, and record the date and timer if extra space is needed.	ne. Provide		
	record is to be maintained by the Inspecting of able by request of EPD or regulatory personn		or a minimum of 5 years and n	nade		
Send	a completed copy to the attention of Ada Ch	an, EFA, (L-62	27)			
Chec	k Items	Response	Description and Comments:			
1.	Is water flowing from the Christy box?	Yes				
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes No				
EŠ: ED: arra	es is indicated to either 1 or 2, contact the &H Team EA or off hours contact the O (pager 04097 or 27595) immediately to ange for reporting to the regulatory ency and sample collection.					
3.	Is there standing water in the Christy box?	Yes No				
inci	es is indicated in 3, note depth and rease inspection frequency to weekly until water is noted					
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/(To)				
	es to any of the above, note date, actions en, and type of repairs when made.					
Supe	rvisor's Signature		Date 7-29	-19		
perco	Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to					

weekly until no standing water is observed.

Date 7-26-19 Inspector Well	cel .	Building Number 317A					
Instructions: Circle the appropriate response for descriptions and comments if necessary. Attach	each item belo additional pape	w, and record the date and time. Provide er if extra space is needed.					
This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.							
Send a completed copy to the attention of Ada C	han, EFA, (L-62	27)					
Check Items	Response	Description and Comments:					
1. Is water flowing from the Christy box?	Yes/(do						
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No						
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.							
3. Is there standing water in the Christy box?	Yes						
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted							
 Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris). 	Yes No						
If yes to any of the above, note date, actions taken, and type of repairs when made.							
Supervisor's Signature		Date 7/29/19					
* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to							

weekly until no standing water is observed.

Date	7-26-19 Inspector Wal	1km	Building Number 826
Instru	uctions: Circle the appropriate response friptions and comments if necessary. Atta	for each item belo	w, and record the date and time. Provide er if extra space is needed.
	record is to be maintained by the Inspecti able by request of EPD or regulatory pers		or a minimum of 5 years and made
Send	a completed copy to the attention of Ada	ı Chan, EFA, (L-62	27)
Chec	k Items	Response	Description and Comments:
1.	Is water flowing from the Christy box?	Yes	
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes No	
EŠ ED arra age	es is indicated to either 1 or 2, contact the &H Team EA or off hours contact the O (pager 04097 or 27595) immediately to ange for reporting to the regulatory ency and sample collection. Is there standing water in the Christy		ادا
If y	box? es is indicated in 3, note depth and rease inspection frequency to weekly untiwater is noted		
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes	
	es to any of the above, note date, actions en, and type of repairs when made.		
Supe	rvisor's Signature		Date 7/29/19
* N	lote: This form may be modified or used plation pits permitted under Monitoring and	as is for documen d Reporting Progra	iting the routine inspections of the am Order Number R5-2008-0148,

Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to

Inspector Laborate

7-26-19

Date	7-26-19 Inspector We	ker	Building Number 227A		
Instru desc	uctions: Circle the appropriate response f riptions and comments if necessary. Atta	or each item belo ch additional pape	w, and record the date and time. Provide er if extra space is needed.		
This avail	record is to be maintained by the Inspection able by request of EPD or regulatory personal transfer or re	ng Organization fo onnel.	or a minimum of 5 years and made		
Send	d a completed copy to the attention of Ada	Chan, EFA, (L-62	27)		
Chec	ck Items	Response	Description and Comments:		
1.	Is water flowing from the Christy box?	Yes			
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No			
ES ED arr	res is indicated to either 1 or 2, contact the BH Team EA or off hours contact the DO (pager 04097 or 27595) immediately to range for reporting to the regulatory ency and sample collection.		437		
3.	Is there standing water in the Christy box?	Yes No	6		
inc	res is indicated in 3, note depth and crease inspection frequency to weekly until water is noted	I			
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/(lo			
	res to any of the above, note date, actions ten, and type of repairs when made.				
	ervisor's Signature		Date <u> </u>		
* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to					

11 11

Date	1-68-11	rspector	ev	Building Number	r <u>03 /</u>
Instr desc	uctions: Circle the appr	opriate response fo if necessary. Attac	r each item belo h additional pape	w, and record the date and er if extra space is needed.	time. Provide
This avail	record is to be maintain able by request of EPD	ed by the Inspecting or regulatory person	g Organization fo	or a minimum of 5 years an	d made
Send	d a completed copy to th	e attention of Ada (Chan, EFA, (L-62	27)	
Che	ck Items		Response	Description and Commen	<u>ıts:</u>
1,0	Is water flowing from t	he Christy box?	Yes		
2.	Are there any signs of (damp dirt around Chr		Yes		
ES ED arr	res is indicated to either i&H Team EA or off hou ion (pager 04097 or 275) ange for reporting to the ency and sample collect	rs contact the 95) immediately to regulatory	6	, 10	
3.	Is there standing wate box?	r in the Christy	Yes/No	6	
inc	res is indicated in 3, note rease inspection freque water is noted				
4.	Are there any other inc percolation pit requires (e.g., excessive build a accumulation of dirt or	maintenance up scale	Yes		
lf y tak	res to any of the above, ten, and type of repairs v	note date, actions when made.			
Supe	ervisor's Signature	4		Date	29/19
perco	plation pits permitted un	der Monitoring and I	Reporting Progra	nting the routine inspections am Order Number R5-2008 ion, increase inspection fred	-0148.

Building Number

Inspector hall

,		
Instructions: Circle the appropriate response for e descriptions and comments if necessary. Attach a	ach item belo dditional pape	w, and record the date and time. Provide er if extra space is needed.
This record is to be maintained by the Inspecting Cavailable by request of EPD or regulatory personn		or a minimum of 5 years and made
Send a completed copy to the attention of Ada Ch	an, EFA, (L-6	27)
<u>Check Items</u>	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/I	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/Io	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/(do	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
 Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris). 	Yenno	
If yes to any of the above, note date, actions taken, and type of repairs when made.)	
Supervisor's Signature	<u></u>	Date <u>6/26/19</u>
* Alaka, This forms was the modified or used so i	a far dagumarı	ating the routine increations of the

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

07/19

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made

Building Number

Inspector Utilker

descriptions and comments if necessary. Attach additional paper if extra space is needed.

availa	able by request of EPD or regulatory personn	el.	-
Send	a completed copy to the attention of Ada Ch	an, EFA, (L-62	27)
Chec	k Items	Response	Description and Comments:
1.	Is water flowing from the Christy box?	Yes	
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/I	[<u>-</u>
EŠ ED arra	es is indicated to either 1 or 2, contact the &H Team EA or off hours contact the O (pager 04097 or 27595) immediately to ange for reporting to the regulatory ency and sample collection.		
3.	Is there standing water in the Christy box?	Yes/No	
inc	es is indicated in 3, note depth and rease inspection frequency to weekly until water is noted		
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes	
	es to any of the above, note date, actions en, and type of repairs when made.		
	ervisor's Signature		Date <u>6/26/19</u>
* 1	Note: This form may be modified or used as i	s for documen	iting the routine inspections of the

Revision 5 07/19

percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to

Building Number

Inspector Wallew

	ictions: Circle the appropriate response for e riptions and comments if necessary. Attach a							
	This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.							
Send	Send a completed copy to the attention of Ada Chan, EFA, (L-627)							
Chec	k Items	Response	Description and Comments:					
1.	Is water flowing from the Christy box?	Yes/(Vo						
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/Mo						
ES ED arra	es is indicated to either 1 or 2, contact the &H Team EA or off hours contact the O (pager 04097 or 27595) immediately to ange for reporting to the regulatory ency and sample collection.	8						
3.	Is there standing water in the Christy box?	Yes/No						
incr	es is indicated in 3, note depth and rease inspection frequency to weekly until water is noted							
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes(No						
	es to any of the above, note date, actions en, and type of repairs when made.							
Supe	rvisor's Signature		Date <u>C/26/19</u>					
	lote: This form may be modified or used as i							

Revision 5 07/19

Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made

Inspector Julian

available by request of EPD or regulatory personnel.

descriptions and comments if necessary. Attach additional paper if extra space is needed.

Send	a completed copy to the attention of Ada Cl	nan, EFA, (L-62	27)
Chec	ck Items	Response	Description and Comments:
1.	Is water flowing from the Christy box?	Yes No	
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes No	
ES ED arr	res is indicated to either 1 or 2, contact the S&H Team EA or off hours contact the DO (pager 04097 or 27595) immediately to range for reporting to the regulatory ency and sample collection.		42))
3.	Is there standing water in the Christy box?	Yes/No	6
inc	ves is indicated in 3, note depth and crease inspection frequency to weekly until water is noted		A
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes No	
	res to any of the above, note date, actions sen, and type of repairs when made.		
	ervisor's Signature	2	Date <u>e/26/19</u>
* 1	Note: This form may be modified or used as	is for documen	iting the routine inspections of the

percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to

Revision 5

weekly until no standing water is observed.

Building Number 827A

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide

Building Number

Inspector Walker

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made

descriptions and comments if necessary. Attach additional paper if extra space is needed.

available by request of EPD or regulatory personnel.

	* *	
Send a completed copy to the attention	on of Ada Chan, EFA, (L-62	27)
Check Items	Response	Description and Comments:
1. Is water flowing from the Christy	y box? Yes No	-
Are there any signs of recent ov (damp dirt around Christy box)?		
If yes is indicated to either 1 or 2, content in ES&H Team EA or off hours contact EDO (pager 04097 or 27595) immediatrange for reporting to the regulator agency and sample collection.	t the diately to	- n
3. Is there standing water in the C box?	hristy Yes No	7"
If yes is indicated in 3, note depth a increase inspection frequency to we no water is noted		
 Are there any other indications percolation pit requires mainten (e.g., excessive build up scale, accumulation of dirt or debris). 		
If yes to any of the above, note date taken, and type of repairs when ma		
Supervisor's Signature		Date <u> </u>
 Note: This form may be modified 	or used as is for documen	nting the routine inspections of the

percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to

Revision 5

weekly until no standing water is observed.

07/19

Date	Sept 27th 2019 Inspector Mik	e Gutierrez	Building Number 801
desc	riptions and comments if necessary. A	ttach additional pape	
This avail	record is to be maintained by the Inspe able by request of EPD or regulatory pe	ecting Organization for ersonnel.	or a minimum of 5 years and made
Send	d a completed copy to the attention of A	da Chan, EFA, (L-6	27)
Che	ck Items	Response	Description and Comments:
1.	Is water flowing from the Christy box?	Yes	
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes	
ES EC arr	res is indicated to either 1 or 2, contact is indicated to either 1 or 2, contact the is indicated by (pager 04097 or 27595) immediately ange for reporting to the regulatory ency and sample collection.		
3.	Is there standing water in the Christy box?	Yes/No	
inc	es is indicated in 3, note depth and rease inspection frequency to weekly u water is noted	ntil	
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	e Yes/No	
	es to any of the above, note date, actio en, and type of repairs when made.	ns	
Supe	rvisor's Signature		Date
* N	Note: This form may be modified or use plation pits permitted under Monitoring a	d as is for documen and Reporting Progra	ting the routine inspections of the am Order Number R5-2008-0148,

Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to

Revision 5

Date Sept 27", 2019 Inspector Mike	Cutierres	Building Number 817
Instructions: Circle the appropriate response for descriptions and comments if necessary. Attach	r each item belo n additional pap	ow, and record the date and time. Provide per if extra space is needed.
This record is to be maintained by the Inspecting available by request of EPD or regulatory persor	g Organization	for a minimum of 5 years and made
Send a completed copy to the attention of Ada C	Chan, EFA, (L-6	227)
Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/Ma	
Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
 Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris). 	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		
Supervisor's Signature		Date
t black Time		

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date	9-36-19 Inspector	Mike	Gutierrez	Building Number 826
Instru	actions: Circle the appropriate re riptions and comments if necess	esponse fo ary. Attack	r each item belov n additional pape	w, and record the date and time. Provide or if extra space is needed.
This availa	record is to be maintained by the able by request of EPD or regula	Inspecting tory perso	g Organization fo	or a minimum of 5 years and made
Send	a completed copy to the attention	on of Ada (Chan, EFA, (L-62	77)
Chec	k Items		Response	Description and Comments:
1.	Is water flowing from the Christy	y box?	Yes/No	
2.	Are there any signs of recent ov (damp dirt around Christy box)?		Yes/No	
ES ED arra	es is indicated to either 1 or 2, co &H Team EA or off hours contact O (pager 04097 or 27595) imme ange for reporting to the regulato ency and sample collection.	t the diately to		
3.	Is there standing water in the C box?	hristy	Yes 🜃	
inc	es is indicated in 3, note depth a rease inspection frequency to we water is noted			
4.	Are there any other indications of percolation pit requires mainten (e.g., excessive build up scale, accumulation of dirt or debris).	that the ance	Yes/No	
	es to any of the above, note date en, and type of repairs when mad			
Supe	rvisor's Signature			Date
* 1	late: This form may be madified	or wood oo	in for document	

^{*} Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Inspector Mile (- diameter

Date	e set 27th, 200 Inspector Mike (sutierrez	Building Number 827
Insti	ructions: Circle the appropriate response fo criptions and comments if necessary. Attack	r each item belo h additional pap	ow, and record the date and time. Provider if extra space is needed.
This avai	record is to be maintained by the Inspecting lable by request of EPD or regulatory perso	g Organization t	for a minimum of 5 years and made
Sen	d a completed copy to the attention of Ada (Chan, EFA, (L-6	27)
Che	ck Items	Response	Description and Comments:
1.	Is water flowing from the Christy box?	Yes	
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
ES EI ar.	yes is indicated to either 1 or 2, contact the S&H Team EA or off hours contact the DO (pager 04097 or 27595) immediately to range for reporting to the regulatory lency and sample collection.		
3.	Is there standing water in the Christy box?	YesNo	_ 6"
ind	yes is indicated in 3, note depth and crease inspection frequency to weekly until water is noted		
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/¶o	
lf y tal	ves to any of the above, note date, actions cen, and type of repairs when made.		
Supe	ervisor's Signature		Date
* I	Note: This form may be modified or used as olation pits permitted under Monitoring and	s is for documer Reporting Progr	nting the routine inspections of the ram Order Number R5-2008-0148,

Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to

Revision 5

weekly until no standing water is observed.

Date Seat 27th 244

227

Date	9-30-19 Inspec	tor Mike	Gutierre	Building Number	851
Instru	uctions: Circle the appropriat riptions and comments if nec	e response for essary. Attach	each item belo additional pap	ow, and record the date and time. er if extra space is needed.	Provid
This avail	record is to be maintained by able by request of EPD or req	the Inspecting	Organization finel.	for a minimum of 5 years and mad	de
Send	a completed copy to the atte	ention of Ada C	han, EFA, (L-6	27)	
Chec	ck Items		Response	Description and Comments:	
1.	Is water flowing from the Ch	risty box?	Yes		
2.	Are there any signs of recer (damp dirt around Christy be		Yes/Nd		
ES ED arr	es is indicated to either 1 or 2 &H Team EA or off hours cor O (pager 04097 or 27595) im ange for reporting to the reguency and sample collection.	itact the mediately to		,	
3.	Is there standing water in the box?	e Christy	@/No	6'.	
inc	es is indicated in 3, note dept rease inspection frequency to water is noted				·
4.	Are there any other indication percolation pit requires main (e.g., excessive build up sca accumulation of dirt or debris	tenance le,	Yes/ (o)		
	es to any of the above, note on en, and type of repairs when				
Supe	rvisor's Signature			Date	
* N	lote: This form may be modif	ind or upod on	o for documen	Aine the moutine in a set of the	

^{*} Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date	10-25-19	Inspector	Μ.	Gutierrez	Building Number	<u> 80 </u>
Instru descr	ctions: Circle the iptions and comm	appropriate res	sponse ry. Att	for each item belo ach additional pap	ow, and record the date and to per if extra space is needed.	ime. Provide
This r		ntained by the	Inspec	ting Organization t	for a minimum of 5 years and	made
Send	a completed copy	to the attention	n of Ad	a Chan, EFA, (L-6	327)	
Checl	<u>c Items</u>			Response	Description and Comments	Σ.
1.	Is water flowing fr	om the Christy	box?	Yes/No		····
2.	Are there any sign (damp dirt around		erflow	Yes/Ko		-
ES8 ED0 arra	es is indicated to e AH Team EA or of D (pager 04097 or Inge for reporting to ncy and sample c	f hours contact 27595) immed to the regulator	the iately t			
3.	Is there standing box?	water in the Ch	risty	Yes/(Q)		
incr	es is indicated in 3 ease inspection fro vater is noted			til		
	Are there any other percolation pit received (e.g., excessive becommulation of december 2)	juires maintena uild up scale,	nat the ince	Yes/N		
If ye take	es to any of the ab en, and type of rep	ove, note date, airs when mad	action: e.	s		
Super	visor's Signature				Date	
* No	ote: This form ma	v be modified o	r used	as is for documen	nting the routine inspections of	of the

Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date	10-25-19 Inspector M. G	utierrez	Building Number 817
Instru descr	ctions: Circle the appropriate response for iptions and comments if necessary. Attact	or each item belo ch additional pap	ow, and record the date and time. Provider if extra space is needed.
This r availa	record is to be maintained by the Inspecting the by request of EPD or regulatory personal terms of the by request of EPD or regulatory personal terms of the byte in the business of the busin	ng Organization formel.	for a minimum of 5 years and made
Send	a completed copy to the attention of Ada	Chan, EFA, (L-6	227)
Chec	k Items	Response	Description and Comments:
1,	Is water flowing from the Christy box?	Yes(No	
2,	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes (No)	
ES8 ED0 arra	es is indicated to either 1 or 2, contact the BH Team EA or off hours contact the O (pager 04097 or 27595) immediately to ange for reporting to the regulatory ncy and sample collection.		
3.	Is there standing water in the Christy box?	Yes	
incr	es is indicated in 3, note depth and ease inspection frequency to weekly until water is noted		
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/160	
If ye take	es to any of the above, note date, actions en, and type of repairs when made.		
Super	visor's Signature		Date

^{*} Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date	10-25-19 Inspector <u>r</u>	1. Gutierrez	Building Number	826
Instru desci	actions: Circle the appropriate resportiptions and comments if necessary.	nse for each item belo Attach additional pap	ow, and record the date and tir per if extra space is needed.	ne. Provide
This i	record is to be maintained by the Ins able by request of EPD or regulatory	pecting Organization personnel.	for a minimum of 5 years and (nade
Send	a completed copy to the attention of	Ada Chan, EFA, (L-6	527)	
Chec	k Items	Response	Description and Comments:	
1.	Is water flowing from the Christy bo	x? Yes(No)		
2.	Are there any signs of recent overflo (damp dirt around Christy box)?	ow Yes/NG		
ES8 ED9 arra	es is indicated to either 1 or 2, contains. Team EA or off hours contact the O (pager 04097 or 27595) immediate ange for reporting to the regulatory ency and sample collection.	905		
3.	Is there standing water in the Christ box?	y Yes/ t €		
incr	es is indicated in 3, note depth and ease inspection frequency to weekly water is noted	until	·	
4.	Are there any other indications that percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).			
If ye take	es to any of the above, note date, actent, and type of repairs when made.	ions		
Super	visor's Signature		Date	
* N	ote: This form may be modified or u	sed as is for documer	nting the routine inspections of	the

Prote: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date	10-25-19 Inspector M. G	sutierrez	Building Number <u></u> 82つ
Instru descr	actions: Circle the appropriate response for iptions and comments if necessary. Attack	r each item belo h additional pap	ow, and record the date and time. Provide er if extra space is needed.
This r availa	record is to be maintained by the Inspecting able by request of EPD or regulatory perso	g Organization f	or a minimum of 5 years and made
Send	a completed copy to the attention of Ada (Chan, EFA, (L-6	27)
Chec	k Items	Response	Description and Comments:
1.	Is water flowing from the Christy box?	Yes/No	
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
ES8 ED0 arra	es is indicated to either 1 or 2, contact the BH Team EA or off hours contact the O (pager 04097 or 27595) immediately to ange for reporting to the regulatory ency and sample collection.		
3.	Is there standing water in the Christy box?	(es/No	6"
incr	es is indicated in 3, note depth and ease inspection frequency to weekly until water is noted		
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/ k 6	
	es to any of the above, note date, actions en, and type of repairs when made.		
	4		
Super	visor's Signature		Date
* N	ote: This form may be modified or used as	is for documen	ting the routine inspections of the

Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date	10-25-19 Inspector _	M	Gutierrez	Building Number	851
Instru descr	ections: Circle the appropriate res iptions and comments if necessa	sponse ry. Atta	for each item belo och additional pap	ow, and record the date and time er if extra space is needed.	Provide
This r availa	record is to be maintained by the able by request of EPD or regulate	Inspect ory pers	ing Organization isonnel.	for a minimum of 5 years and ma	ide
Send	a completed copy to the attention	of Ada	a Chan, EFA, (L-6	27)	
Chec	k Items		Response	Description and Comments:	
1.	Is water flowing from the Christy	box?	Yes (No		
2.	Are there any signs of recent ove (damp dirt around Christy box)?	erflow	Yes/160		<u>.</u>
ES8 ED9 arra	es is indicated to either 1 or 2, cor BH Team EA or off hours contact O (pager 04097 or 27595) immed ange for reporting to the regulator ancy and sample collection.	the lately to			
3.	Is there standing water in the Ch box?	risty	⊘ No	7'.	
incr	es is indicated in 3, note depth an ease inspection frequency to wee water is noted		I		
4.	Are there any other indications the percolation pit requires maintena (e.g., excessive build up scale, accumulation of dirt or debris).		Yes/Øð		
	es to any of the above, note date, en, and type of repairs when made				
Super	visor's Signature			Date	
* N	ote: This form may be modified o	rused	as is for documen	ting the routine inspections of th	

percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date	11-27-19 Inspector M	. Gutierrez	Building Number 801
Instr	uctions: Circle the appropriate respons riptions and comments if necessary. A	se for each item belo ttach additional pap	ow, and record the date and time. Provide per if extra space is needed.
This avail	record is to be maintained by the Inspe able by request of EPD or regulatory po	ecting Organization (ersonnel.	for a minimum of 5 years and made
Send	i a completed copy to the attention of A	da Chan, EFA, (L-6	27)
Chec	ck Items	Response	Description and Comments:
1.	Is water flowing from the Christy box?	Yes/No	
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
ES ED arr	es is indicated to either 1 or 2, contact &H Team EA or off hours contact the O (pager 04097 or 27595) immediately ange for reporting to the regulatory ency and sample collection.		
3.	Is there standing water in the Christy box?	Yes/I	
inc	es is indicated in 3, note depth and rease inspection frequency to weekly uwater is noted	ntil	
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	e Yes/No	
If y tak	es to any of the above, note date, actio en, and type of repairs when made.	ns	
Supe	rvisor's Signature	Date	
* N	lote: This form may be modified or use plation pits permitted under Monitoring a	ed as is for document and Reporting Progr	ating the routine inspections of the

Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to

Date	11-27-19	Inspector _	M. Gu	herrez	Building Number	817
Instru descr	ections: Circle the appriptions and comments	ropriate res	oonse for e y. Attach a	each item belo additional pap	ow, and record the date and ti per if extra space is needed.	me. Provid
This i	record is to be maintai able by request of EPE	ned by the li or regulato	nspecting (ry personr	Organization in the second	for a minimum of 5 years and	made
Send	a completed copy to t	he attention	of Ada Ch	an, EFA, (L-6	527)	
Chec	k Items			Response	Description and Comments	<u>:</u>
1.	Is water flowing from	the Christy I	oox?	Yes(No)		
2.	Are there any signs o (damp dirt around Ch		rflow	Yes		
ES8 ED9 arra	es is indicated to eithe &H Team EA or off how O (pager 04097 or 275 ange for reporting to the ancy and sample collect	urs contact t 595) immedia e regulatory	he ately to			
3.	Is there standing water box?	er in the Chri	sty	YesNo		
incr	es is indicated in 3, not ease inspection freque water is noted					·.
4.	Are there any other in percolation pit require (e.g., excessive build accumulation of dirt o	s maintenan up scale,		Yes(No		_
If ye take	es to any of the above en, and type of repairs	note date, a when made	actions			
Super	visor's Signature				Date	
* N	ote: This form may be	modified or	used as is	for documen	nting the routine ineractions of	the

Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date	Inspector	M. Guti	errez_	Building Number	<u>824</u>
Instru descr	actions: Circle the appropriate res riptions and comments if necessar	ponse for early. Attach ac	ch item belo	ow, and record the date and ti er if extra space is needed.	me. Provide
This	record is to be maintained by the I able by request of EPD or regulato	nspecting O	rganization f		made
Send	a completed copy to the attention	of Ada Cha	n, EFA, (L-6	27)	
Chec	k Items]	Response	Description and Comments	<u>.</u>
1,5	Is water flowing from the Christy	box?	Yes/No3		
2.	Are there any signs of recent ove (damp dirt around Christy box)?	erflow	Yes/No		
ES: ED: arra	es is indicated to either 1 or 2, cor &H Team EA or off hours contact to O (pager 04097 or 27595) immedi ange for reporting to the regulatory ency and sample collection.	the iately to			
3.	Is there standing water in the Chrbox?	risty	YesA	•	
incr	es is indicated in 3, note depth and ease inspection frequency to wee water is noted				
4.0	Are there any other indications th percolation pit requires maintenar (e.g., excessive build up scale, accumulation of dirt or debris).		YeskNo		
If ye take	es to any of the above, note date, en, and type of repairs when made	actions e.			
Super	visor's Signature	202.000	_	Date	
* N	ote: This form may be modified o	r used as is	for documen	ting the routine inspections of	the

percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date	11-27-19 Inspector 1	M. Gutierrez	Building Number	<u>827</u>
Instru descr	ctions: Circle the appropriate res iptions and comments if necessar	ponse for each item bel ry. Attach additional pa	ow, and record the date and time per if extra space is needed.	э. Provide
This ravaila	ecord is to be maintained by the I ble by request of EPD or regulate	Inspecting Organization ory personnel.	for a minimum of 5 years and m	ade
Send	a completed copy to the attention	of Ada Chan, EFA, (L-6	627)	
Checi	« Items	Response	Description and Comments:	
1.	Is water flowing from the Christy	box? Yes/16		
2	Are there any signs of recent ove (damp dirt around Christy box)?	erflow Yes/No		
EŠ8 ED0 arra	es is indicated to either 1 or 2, con kH Team EA or off hours contact to 0 (pager 04097 or 27595) immedi nge for reporting to the regulatory ncy and sample collection.	the iately to		
3.	Is there standing water in the Chr box?	risty (S)/No	6.	
incr	es is indicated in 3, note depth and ease inspection frequency to wee water is noted		•	
	Are there any other indications the percolation pit requires maintenar (e.g., excessive build up scale, accumulation of dirt or debris).	at the Yes/Kos nce		
If ye take	s to any of the above, note date, and type of repairs when made	actions e.		
Super	visor's Signature		Date	
* No	te: This form may be modified or	r used as is for documer	nting the routine inspections of the	ne

Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date	11-27-19 Inspe	ector <u>H</u>	<u>. G.</u>	tierrez	Building Number	851
Instru descr	ctions: Circle the appropri iptions and comments if ne	ate respons	se for Attach	each item belo	w, and record the date and tirer if extra space is needed.	me. Provide
This r availa	ecord is to be maintained ble by request of EPD or r	by the Insperence	ecting erson	Organization fon nel.	or a minimum of 5 years and	made
Send	a completed copy to the a	ttention of A	Ada C	han, EFA, (L-62	27)	
Checl	<u> (Items</u>			Response	Description and Comments:	
1.	Is water flowing from the 0	Christy box	?	Yes/No		
2.	Are there any signs of rec (damp dirt around Christy		v	Yes/🔞		
ES8 ED0 arra	es is indicated to either 1 o AH Team EA or off hours o D (pager 04097 or 27595) nge for reporting to the requery ncy and sample collection	ontact the immediatel gulatory				
	Is there standing water in box?	the Christy		€ /No	7'	
incr	es is indicated in 3, note de ease inspection frequency vater is noted		ıntil			<u>.</u>
	Are there any other indicate percolation pit requires made (e.g., excessive build up secondation of dirt or debut the contraction of the contracti	aintenance cale,	е	Yes/No		-
	es to any of the above, note on, and type of repairs whe		ons			
Super	visor's Signature	-			Date	

^{*} Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date 12-14-14	Inspector H. G	wherell	Building Number	801
				A SERVICE OF SERVICE
Instructions: Circle the descriptions and comn	e appropriate response for nents if necessary. Attach	each item belo additional pap	ow, and record the date and time er if extra space is needed.	. Provide
This record is to be ma available by request of	intained by the Inspecting EPD or regulatory person	Organization f	or a minimum of 5 years and ma	ade
Send a completed cop	y to the attention of Ada C	han, EFA, (L-6	27)	
Check Items		Response	Description and Comments:	
1. Is water flowing	from the Christy box?	Yes/No		
Are there any sig (damp dirt aroun)	gns of recent overflow d Christy box)?	Yes/Mo		
ES&H Team EA or o	r 27595) immediately to to the regulatory			
3. Is there standing box?	water in the Christy	Yes/M		
If yes is indicated in a increase inspection for no water is noted	3, note depth and requency to weekly until			
		Yes/ <mark>I</mark>		
If yes to any of the at taken, and type of re	pove, note date, actions pairs when made.			
Supervisor's Signature			Date	
* Note: This form ma	ay be modified or used as	is for documen	ting the routine inspections of th	
				-

percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to

weekly until no standing water is observed.

Date 12-19-19 Inspector M. G.	utierrez	Building Number 817
Instructions: Circle the appropriate response for descriptions and comments if necessary. Attack	or each item belo ch additional pap	ow, and record the date and time. Provide er if extra space is needed.
This record is to be maintained by the Inspectir available by request of EPD or regulatory personal statements.	ng Organization f onnel.	or a minimum of 5 years and made
Send a completed copy to the attention of Ada	Chan, EFA, (L-6	27)
Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes	
Are there any signs of recent overflow (damp dirt around Christy box)?	Yes	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes. (1)	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
 Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris). 	Yes	
If yes to any of the above, note date, actions taken, and type of repairs when made.		
Supervisor's Signature		Date
* Alexand This forms many to many (5 of	2012 - 27	

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148. Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date 12-19-19	nspector M. G.	therrez	Building Number 826
Instructions: Circle the appr descriptions and comments	ropriate response for if necessary. Attach	each item belo additional pap	ow, and record the date and time. Provier if extra space is needed.
This record is to be maintain available by request of EPD	ned by the Inspecting or regulatory persor	g Organization nnel.	for a minimum of 5 years and made
Send a completed copy to the	ne attention of Ada C	han, EFA, (L-6	327)
Check Items		Response	Description and Comments:
1. Is water flowing from t	he Christy box?	Yes/No	
Are there any signs of (damp dirt around Chr)		Yes	
If yes is indicated to either ES&H Team EA or off hou EDO (pager 04097 or 275 arrange for reporting to the agency and sample collections)	rs contact the 95) immediately to e regulatory		
3. Is there standing wate box?	r in the Christy	Yes/100	
If yes is indicated in 3, not increase inspection freque no water is noted			
Are there any other income percolation pit requires (e.g., excessive build accumulation of dirt or perconduction).	s maintenance up scale,	Yes/🐼	
If yes to any of the above, taken, and type of repairs			
Supervisor's Signature		- KJ23	Date
* Note: This form may be	modified or used as	is for documer	nting the routine inspections of the

Processing the modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Inspector N (- Naccent

Date	12-19-19 Inspector <u>M. G.</u>	Kerrez	Building Number
Instr	ructions: Circle the appropriate response for criptions and comments if necessary. Attach	each item bel additional pap	ow, and record the date and time. Provide per if extra space is needed.
This avai	record is to be maintained by the Inspecting lable by request of EPD or regulatory persor	Organization nel.	for a minimum of 5 years and made
Sen	d a completed copy to the attention of Ada C	han, EFA, (L-6	627)
Che	ck Items	Response	Description and Comments:
1.	Is water flowing from the Christy box?	Yes	
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/NG	· · · · · · · · · · · · · · · · · · ·
ES ED arr	res is indicated to either 1 or 2, contact the S&H Team EA or off hours contact the DO (pager 04097 or 27595) immediately to range for reporting to the regulatory ency and sample collection.		
3.	Is there standing water in the Christy box?	(es)No	6"
inc	res is indicated in 3, note depth and crease inspection frequency to weekly until water is noted		
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/🚳	
lf y tak	es to any of the above, note date, actions en, and type of repairs when made.		
Supe	rvisor's Signature		Date
* N	lote: This form may be madified or used as	in for documen	Allow Many Art and Art

Date 13-19-19

Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date	12-19-19 Inspector Mike	Gutierrez	Building Number
Instr desc	uctions: Circle the appropriate response for riptions and comments if necessary. Attach	each item belo	ow, and record the date and time. Provid er if extra space is needed.
This avail	record is to be maintained by the Inspecting able by request of EPD or regulatory person	Organization t	for a minimum of 5 years and made
Send	d a completed copy to the attention of Ada C	han, EFA, (L-6	227)
Chec	ck Items	Response	Description and Comments:
1::	Is water flowing from the Christy box?	Yes	
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes	
ES ED arr	es is indicated to either 1 or 2, contact the &H Team EA or off hours contact the O (pager 04097 or 27595) immediately to ange for reporting to the regulatory ency and sample collection.		
3.	Is there standing water in the Christy box?	Ve≥ No	6"
inc	es is indicated in 3, note depth and rease inspection frequency to weekly until water is noted		
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/Mo	
	es to any of the above, note date, actions en, and type of repairs when made.		
Supe	rvisor's Signature		Date
			er .

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

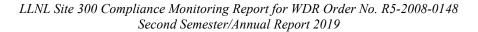
Appendix C

Mechanical Room Network

Mechanical Equipment Discharge Effluent Monitoring for Buildings 806A, 827A, 827C, and 827E

Mechanical Equipment Room Percolation Pit

Inspection Forms



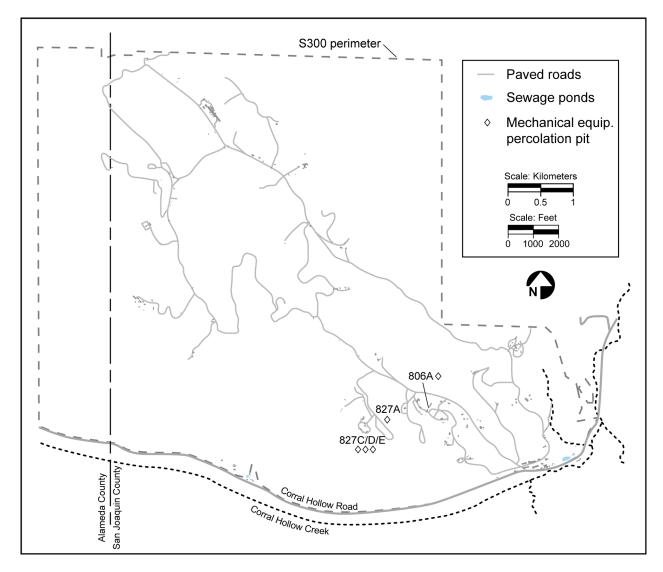


Figure C-1. Location of mechanical equipment wastewater percolation pits.

Table C-1. Site 300 mechanical equipment discharge effluent monitoring 2019 anions data summary.

Well	Well Date		Chloride mg/L	Nitrate (as NO3) mg/L	Sulfate mg/L	Fluoride mg/L
	May 15	210	89	< 0.5	170	0.22
3-B806A-OW	Oct 1	250	92	< 0.5	180	0.20
	Oct 1 DUP	240	92	< 0.5	180	0.20
	May 7	280	120	< 0.5	220	0.20
3-B827A-OW	May 7 DUP	270	120	< 0.5	220	0.21
	Oct 1	1800	710	3.5	1300	1.8
2 D927C OW	May 29	220	87	< 0.5	160	0.17
3-B827C-OW	Oct 2	240	95	< 0.5	170	0.19
2 D927E OW	May 7	230	88	< 0.5	170	0.17
3-B827E-OW	Oct 2	240	91	< 0.5	170	0.20

Table C-2. Site 300 mechanical equipment discharge effluent monitoring 2019 metals data summary.

Analyte (μg/L)	Date	3-B806A-OW	3-B806A-OW DUP	3-B827A-OW	3-B827A-OW DUP	3-B827C-OW	3-B827E-OW
	May 7	-	-	<50	<50	-	< 50
	May 15	<50	-	-	-	-	-
Aluminum	May 29	-	-	-	-	<50	-
	Oct 1	<50	<50	<250	-	-	-
	Oct 2	-	-	-	-	<50	<50
	May 7	-	-	<2	<2	-	<2
	May 15	<2	-	-	-	-	-
Arsenic	May 29	-	-	-	-	<2	-
	Oct 1	<2	<2	8.0	-	-	-
,	Oct 2	-	-	-	-	<2	<2
	May 7	-	-	<25	<25	-	<25
	May 15	<25	-	-	-	-	-
Barium	May 29	-	-	-	-	<25	-
	Oct 1	<25	<25	170	-	-	-
	Oct 2	-	-	-	-	<25	<25
	May 7	-	-	1100	1100	-	880
ļ	May 15	820	-	-	-	-	-
Boron	May 29	-	-	-	-	900	-
ļ	Oct 1	880	920	6100	-	-	-
	Oct 2	-	-	-	-	910	920

Table C-2. Site 300 mechanical equipment discharge effluent monitoring 2019 metals data summary continued.

Analyte (μg/L)	Date	3-B806A-OW	3-B806A-OW DUP	3-B827A-OW	3-B827A-OW DUP	3-B827C-OW	3-B827E-OW
	May 7	-	-	< 50	<50	-	<50
	May 15	<50	-	-	-	-	-
Cadmium	May 29	-	-	-	-	<50	-
	Oct 1	<50	<50	<100	-	-	-
	Oct 2	-	-	-	-	<50	<50
	May 7	-	-	12000	12000	-	9900
	May 15	7900	-	-	-	-	-
Calcium	May 29	-	-	-	-	10000	-
	Oct 1	8500	8500	62000	-	-	-
	Oct 2	-	-	-	-	11000	10000
	May 7	-	-	<1	<1	-	<1
	May 15	<1	-	-	-	-	-
Chromium	May 29	-	-	-	-	<1	-
	Oct 1	<1	<1	<2	-	-	-
	Oct 2	-	-	-	-	<1	<1
	May 7	-	-	<1	<1	-	<1
	May 15	<1	-	-	-	-	-
Chromium (VI)	May 29	-	-	-	-	<1	-
	Oct 1	2.0	<2	31	-	-	-
	Oct 2	-	-	-	-	<2	<2

Table C-2. Site 300 mechanical equipment discharge effluent monitoring 2019 metals data summary continued.

Analyte (μg/L)	Date	3-B806A-OW	3-B806A-OW DUP	3-B827A-OW	3-B827A-OW DUP	3-B827C-OW	3-B827E-OW
	May 7	-	-	4.1	4.0	-	37
	May 15	12	-	-	-	-	-
Copper	May 29	-	-	-	-	150	-
	Oct 1	17	17	57	-	-	-
	Oct 2	-	-	-	-	19	8.1
	May 7	-	-	120	120	-	290
	May 15	<100	-	-	-	-	-
Iron	May 29	-	-	-	-	1300	-
	Oct 1	<100	<100	< 500	-	-	-
	Oct 2	-	-	-	-	160	<100
	May 7	-	-	<5	<5	-	<5
	May 15	<5	-	-	-	-	-
Lead	May 29	-	-	-	-	<5	-
	Oct 1	<5	<5	<10	-	-	-
	Oct 2	-	-	-	-	<5	<5
	May 7	-	-	< 500	< 500	-	< 500
	May 15	< 500	-	-	-	-	-
Magnesium	May 29	-	-	-	-	< 500	-
	Oct 1	< 500	< 500	<2500	-	-	-
	Oct 2	-	-	-	-	< 500	< 500

Table C-2. Site 300 mechanical equipment discharge effluent monitoring 2019 metals data summary continued.

Analyte (μg/L)	Date	3-B806A-OW	3-B806A-OW DUP	3-B827A-OW	3-B827A-OW DUP	3-B827C-OW	3-B827E-OW
	May 7	-	-	<30	<30	-	<30
	May 15	<30	-	-	-	-	-
Manganese	May 29	-	-	-	-	<30	-
	Oct 1	<30	<30	<150	-	-	-
	Oct 2	-	-	-	-	<30	<30
	May 7	-	-	<0.2	<0.2	-	<0.2
	May 15	<0.2	-	-	-	-	-
Mercury	May 29	-	-	-	-	<0.2	-
	Oct 1	<0.2	<0.2	<0.2	-	-	-
	Oct 2	-	-	-	-	<0.2	<0.2
	May 7	-	-	<25	<25	-	<25
	May 15	<25	-	-	-	-	-
Molybdenum	May 29	-	-	-	-	<25	-
	Oct 1	<25	<25	<120	-	-	-
	Oct 2	-	-	-	-	<25	<25
	May 7	-	-	<2	<2	-	<2
	May 15	<2	-	-	-	-	-
Nickel	May 29	-	-	-	-	<2	-
	Oct 1	<2	<2	4.5	-	-	-
	Oct 2	-	-	-	-	<2	<2

Table C-2. Site 300 mechanical equipment discharge effluent monitoring 2019 metals data summary continued.

Analyte (μg/L)	Date	3-B806A-OW	3-B806A-OW DUP	3-B827A-OW	3-B827A-OW DUP	3-B827C-OW	3-B827E-OW
	May 7	-	-	15000	12000	-	8500
	May 15	8800	-	-	-	-	-
Potassium	May 29	-	-	-	-	8700	-
	Oct 1	8600	8700	77000	-	-	-
	Oct 2	-	-	-	-	8600	8400
	May 7	-	-	<2	<2	-	<2
Selenium	May 15	<2	-	-	-	-	-
Selemum	May 29	-	-	-	-	<2	-
	Oct 1	<2	<2	130	-	-	-
	Oct 2	-	-	-	-	<2	<2
	May 7	-	-	<10	<10	-	<10
	May 15	<10	-	-	-	-	-
Silver	May 29	-	-	-	-	<10	-
	Oct 1	<10	<10	<20	-	-	-
	Oct 2	-	-	-	-	<10	<10
	May 7	-	-	<20	<20	-	<20
	May 15	<20	-	-	-	-	-
Vanadium	May 29	-	-	-	-	<20	-
	Oct 1	<20	<20	<40	-	-	-
	Oct 2	-	-	-	-	<20	<20

Table C-2. Site 300 mechanical equipment discharge effluent monitoring 2019 metals data summary continued.

Analyte (μg/L)	Date 3-B806A-OW		3-B806A-OW DUP	3-B827A-OW	3-B827A-OW DUP	3-B827C-OW	3-B827E-OW
	May 7	-	-	26	28	-	22
	May 15	<20	-	-	-	-	-
Zinc	May 29	-	-	-	-	29	-
	Oct 1	<20	<20	120	-	-	-
	Oct 2	-	-	-	-	<20	<20

Note:

^{- =} Sampling not required, sampling was performed for that analyte on a different date.

Table C-3. Site 300 mechanical equipment discharge effluent monitoring 2019 physical data.

Well	Date	pН	Specific Conductance µmhos/cm	Total Alkalinity (as CaCO ₃) mg/L	Total dissolved solids (TDS) mg/L	Total Hardness (as CaCO ₃) mg/L	Total Phosphorus (as PO ₄) mg/L
3-B806A-OW	May 15	8.9	1070	230	700	20	<1
3-B806A-OW	Oct 1	8.7	1050	220	700	22	<1
3-B806A-OW	Oct 1 DUP	8.6	1050	220	740	22	<1
3-B827A-OW	May 7	8.9	1330	280	980	31	2.2
3-B827A-OW	May 7 DUP	8.8	1330	280	990	30	2.2
3-B827A-OW	Oct 1	9.3	7190	1600	5600	160	28
3-B827C-OW	May 29	8.9	1080	230	760	26	<1
3-B827C-OW	Oct 2	8.9	1100	220	710	27	<1
3-B827E-OW	May 7	8.6	1060	220	760	25	<1
3-B827E-OW	Oct 2	8.6	1080	240	720	26	<1

FIELD TRACKING FORM

Semi-Annual Site 300 Mechanical Equipment Room/Percolation Pit Discharge

Special Instructions:	Should be sampled in early April and October.
See back of form for addit	tional access information
** For 3-B827A-OW Conta	act FPOC; Off-road travel
Location name change inf	o: 3-B827A-OW previously 3-CT-PERC-OW
	3-B806A-OW previously 3-806B-OW

LAB	CoC#	Ship It #		
BC Labs	80935	249602		

pH meter calibrated on: 10/1/19
Specific Conductance meter calibrated on: 10/1/19

Sample Date: /0/1/19

		Field		ВС	Labs		Comments		
Location Indentifier	Sample Time	Initials	рН	Specific Conductance	S3METALS 500mL Poly	S3ANIONS 1 x 500ml Poly	S3WETCHEM 1000mL Poly		BOBA STATED AT 0735 75; 130 ml Semples collected over 46/2 how Time frame = 45Lives Collected, one Sample Collected every 5 min. 8274 STANDED AT 0830
3-B827A-OW**	1430	14576 BC	9.25	7.35,75	/	-	v		73, 130 m/ Samp LS Collered
3-B827C-OW									one a b how xime frame
3-B827D-OW									23 livers corlected one
3-B827E-OW									Somple collected every
3-B806A-OW	1405	RESTORGE	8.43	932	V	V	V		5 min. * Somple Collectoon Convainer fell over
Duplicate of 3-827A-OW 2nd Qtr									
Duplicate of 3-806A-OW	4th Qtr							25.00	
3-B9900-OW	1465	163 16,16	8,43	93245	1	~	1		

FIELD TRACKING FORM

Semi-Annual Site 300 Mechanical Equipment Room/Percolation Pit Discharge

Special Instructions:	Should be sampled in early April and October.
See back of form for additiona	l access information
** For 3-B827A-OW Contact F	POC; Off-road travel
Location name change info: 3	3-B827A-OW previously 3-CT-PERC-OW

3-B806A-OW previously 3-806B-OW

pH meter calibrated on: 10/2/19	
Specific Conductance meter calibrated on: 10/2/	9

CoC#

Ship It # 249685

LAB

BC Labs

Sample Date: 10/2/19

		Field	BC Labs			100	Comments		
Location indentifier	Sample Time	Initials	PH	Specific Conductance	S3METALS 500mL Poly	S3ANIONS 1 x 500ml Poly	S3WETCHEM 1000mL Poly		827ESTATED at 07:50 m. 75, 130 ml Scomples Collected over 9 6 hour time frame one Scomple every 5 min. 2 8 Liters collected. 827C Starped at 08:10 Am
3-B827A-OW** 3-B827C-OW	1410	74	8.78	97625	-	- ~			75,130 nL samples collected
3-B827D-OW									one Suraple every 5 minutes. ~ 7.5 Liters Collected
3-B827E-OW	1400	TG	8.62	98441	-	-			~ 1.5 Liters Collected
3-B806A-OW									
Duplicate of 3-827A-OW Duplicate of 3-806A-OW	2nd Qtr 4th Qtr								
3-B9900-OW									

Chain of Custody

DMT Additional Copies:

EFA Data Management Team Lawrence Livermore National Laboratory P.O. Box 808 L-627 Livermore, CA 94551

Work Authorized By: EFA	
TRR Approver: DELLA BURRUSS	
Project Info:	

Access/COC #: 80935	Analytical Lab : BCLABS-BAK	Additional Instructions:
Document Control #: 80935	TAT:20d	1
Requester/LLNL Analyst: A. Chan	Analytical Lab Log #:	
Organization / Sampler: EFA / brunckhorst2	Project/Network: MECHEQUIPMNTRMS	
PCI Project #: 44497	ShipIt Release #: 249602	
PCI Task #: ES&H Bills and Taxes	Add'l Email:	
Email: ofa dmt@linl.gov		1

Sample ID	Sampled Date/Time	Matrix	Cont. Type	Cont. Count	Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-B806A-01-OW	10/01/2019 14:05	AQ	as Ras	Gen. 1	MECHEQUIPM	S3ANIONS	ALL	MENDOMENE PROFITS INCIDING
3-B806A-01-OW	10/01/2019 14:05	AQ	Р	0	MECHEQUIPM	S3METALS	ALL	
3-B806A-01-OW	10/01/2019 14:05	AQ	Р	120	MECHEQUIPM	S3METALS	TOTAL	1877
3-B806A-01-OW	10/01/2019 14:05	AQ	Р	1	MECHEQUIPM	S3WETCHEM	ALL	
3-B9900-01-OW	10/01/2019 14:05	AQ	Р	1	MECHEQUIPM	S3ANIONS	ALL	連門 照譜
3-B9900-01-OW	10/01/2019 14:05	AQ	Р	0	MECHEQUIPM	S3METALS	ALL	
3-B9900-01-OW	10/01/2019 14:05	AQ	Р	1	MECHEQUIPM	S3METALS	TOTAL	S. A.
3-B9900-01-OW	10/01/2019 14:05	AQ	Р	1.88	MECHEQUIPM	S3WETCHEM	ALL	
3-B827A-01-OW	10/01/2019 14:30	AQ	Р	1	MECHEQUIPM	S3ANIONS	ALL	
3-B827A-01-OW	10/01/2019 14:30	AQ	Port	0	MECHEQUIPM	S3METALS	ALL	No. of the second secon
3-B827A-01-OW	10/01/2019 14:30	AQ	P	E Marie	MECHEQUIPM	S3METALS	TOTAL	
3-B827A-01-OW	10/01/2019 14:30	AQ	Р	1	MECHEQUIPM	S3WETCHEM_	ALL	
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Relinquished-Signature	Company	Date	Time	Received Signature	Company	Date	Time
1 face Brighto	LLNL/EFA	10/1/2019	1530	2 Hary Dogan	13CLAB	10-1-19	1630
2				3			
3				4			
4				5			Pero 1 of 1

Revision Printed: 11/24/2015/13/04/05

Signature Order - 1: Sampler, 2: Courier, 3: Lab, 4: Analyst, 5: DMT

Page 1 of 1

Chain of Custody

Email: efa-dmt@llnl.gov

DMT Additional Copies:

EFA Data Management Team Lawrence Livermore National Laboratory P.O. Box 808 L-627 Livermore, CA 94551

Work Authorized By: EFA	
TRR Approver: DELLA BURRUSS	
Project Info:	

Access/COC #: 80941	Analytical Lab : BCLABS-BAK	Additional Instructions:
Document Control #:80941	TAT:20d	14
Requester/LLNL Analyst: A. Chan	Analytical Lab Log #:	
Organization / Sampler: EFA / brunckhorst2	Project/Network: MECHEQUIPMNTRMS	
PCI Project #: 44497	ShipIt Release #: 249685	
PCI Task #: ES&H Bills and Taxes	Add'I Email:	1

Sample ID	Sampled Date/Time	Matrix	Cont. Type		Study Area	Req. Analysis	Analysis Detail	Lab Instructions
3-B827C-01-OW	10/02/2019 14:10	AQ	#P.M	22_1	MECHEQUIPM	S3ANIONS	*ZZZZ ALL	the second control of the control of
3-B827C-01-OW	10/02/2019 14:10	AQ	Р	0	MECHEQUIPM	S3METALS	ALL	
3-B827C-01-OW	10/02/2019 14:10	AQ	Р	160	MECHEQUIPM	S3METALS	TOTAL	
3-B827C-01-OW	10/02/2019 14:10	AQ	Р	1 名詞	MECHEQUIPM	S3WETCHEM	ALL	
3-B827E-01-OW	10/02/2019 14:00	AQ	Р	1	MECHEQUIPM	S3ANIONS	ALL	
3-B827E-01-OW	10/02/2019 14:00	AQ	Р	0	MECHEQUIPM	S3METALS	ALL	
3-B827E-01-OW	10/02/2019 14:00	AQ	Р	_1	MECHEQUIPM	S3METALS	TOTAL	COLUMN CO
3-B827E-01-OW	10/02/2019 14:00	AQ	P	1Д	MECHEQUIPM	S3WETCHEM	ALL	100 Pag
		TOTAL .		455		21072		54.74.8 557.95
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Relinquished Signature	Company	Date	Time	Received Signature	Company	Date	Time
1 Haul Usuntla	LLNUEFA	10/2/2019	1510	2 Low Bagan	BC/A-b	10279	1630
2				3			
3				4			
4				5			

Revision Printed: 11/24/2015/13/04/05

Date 7/11/19 Inspector Sasur	W1711	Building Number <u>827 A</u>						
Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.								
This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.								
Send a completed copy to the attention of Ada Chan, Environmental Functional Area, (L-627)								
Check Items	Response	Description and Comments:						
1. Is water flowing from the Christy box?	Yes/No							
Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No							
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.								
3. Is there standing water in the Christy box?	Yes/No							
If yes is indicated in 3, note depth and increase inspection frequency as needed until no water is noted								
 Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris). 	Yes/No							
If yes to any of the above, note date, actions taken, and type of repairs when made.	7							
Supervisor's Signature	ulu.	Date						
* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency as needed until no standing water is observed.								

Date 7/11/19 Inspector	uson Witti	Building Number	827C					
Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.								
This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.								
Send a completed copy to the attention of Ada Chan, Environmental Functional Area, (L-627)								
Check Items	Response	Description and Comments	<u>s:</u>					
1. Is water flowing from the Christy box	? Yes(No)							
2. Are there any signs of recent overflo (damp dirt around Christy box)?	w Yes/No							
If yes is indicated to either 1 or 2, contac ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediate arrange for reporting to the regulatory agency and sample collection.								
3. Is there standing water in the Christy box?	/ Yes/No							
If yes is indicated in 3, note depth and increase inspection frequency as needed until no water is noted	d							
 Are there any other indications that t percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris). 	he Yes/No							
If yes to any of the above, note date, actitaken, and type of repairs when made.	ions							
Supervisor's Signature * Note: This form may be modified or used as is for documenting the routine inspections of the								
percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency as								

needed until no standing water is observed.

Date 7/11/11 Inspector Jason Withis Building Number 827 D

Instructions: Circle the appropriate response for descriptions and comments if necessary. Attach	each item belo additional pap	ow, and record the date and time. Provider if extra space is needed.
This record is to be maintained by the Inspecting available by request of EPD or regulatory personness.	Organization f nel.	for a minimum of 5 years and made
Send a completed copy to the attention of Ada Ch	nan, Environm	ental Functional Area, (L-627)
Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency as needed until no water is noted		
 Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris). 	Yes(No)	
If yes to any of the above, note date, actions taken, and type of repairs when made.		
Supervisor's Signature Mun Mh	lran	Date <u>7-(/-19</u>
* Note: This form may be modified or used as in percolation pits permitted under Monitoring and Revision 1. If standing water is observed in the management of the management	eporting Progr	am Order Number R5-2008-0148,

03/2019

Date 1/11	/ 19	Inspector	Jason	Wittig	Buildir	g Number	827 E	
Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.								
This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.								
Send a completed copy to the attention of Ada Chan, Environmental Functional Area, (L-627)								
Check Items				Response	Description and	l Comments	<u>:</u>	
1. Is water	flowing fron	n the Christy	y box?	Yes (No)				
2. Are ther (damp of	e any signs lirt around C			Yes/No				
If yes is indices. ES&H Team EDO (pager arrange for agency and	n EA or off h 04097 or 2 reporting to	ours contac 7595) imme the regulato	t the diately to					
3. Is there box?	standing wa	iter in the Cl	hristy	Yes(No)				
If yes is indicincrease insuntil no water	pection freq							
(e.g., ex	e any other ion pit requi cessive buil lation of dirt	res mainten d up scale,		Yes/(No)				
If yes to any taken, and t								
Supervisor's S	ignature ₋	Bein	llal	en	Date	7.11	.19	
* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency as needed until no standing water is observed.								

Building Number

Inspector MARK KRAUHS

descriptions and comments if necessary. Attach additional paper if extra space is needed.

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide

This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.							
Send a completed copy to the attention of Ada Chan, Environmental Functional Area, (L-627)							
Chec	ck Items	Response	Description and Comments:				
1.	Is water flowing from the Christy box?	Yes/No					
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No					
ES ED arra	es is indicated to either 1 or 2, contact the &H Team EA or off hours contact the O (pager 04097 or 27595) immediately to ange for reporting to the regulatory ency and sample collection.						
3.	Is there standing water in the Christy box?	Yes/No					
inci	es is indicated in 3, note depth and rease inspection frequency as needed il no water is noted						
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No					
If ye take	es to any of the above, note date, actions en, and type of repairs when made.						
Supe	rvisor's Signature		Date 4 7-/-/9				
* N	Note: This form may be modified or used as is for documenting the routine inspections of the						

percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency as

needed until no standing water is observed.

Date 6-24-2019

Date 8/7/19 Inspector JASON W17714 Building Number 827 A

Instructions: Circle the appropriate response for edescriptions and comments if necessary. Attach	each item belo additional pap	ow, and record the date and time. Provider if extra space is needed.
This record is to be maintained by the Inspecting available by request of EPD or regulatory personn	Organization f nel.	or a minimum of 5 years and made
Send a completed copy to the attention of Ada Ch	an, Environm	ental Functional Area, (L-627)
Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	Yes/No	
Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	-
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		
 Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris). 	Yes/No	
If yes to any of the above, note date, actions taken, and type of repairs when made.		
Supervisor's Signature	M	Date 8-7.19
Note: This form may be modified or used as is percolation pits permitted under Monitoring and Receision 1. If standing water is observed in the moveekly until no standing water is observed.	porting Progra	m Order Number R5-2008-0148

Date 8 7 19 Inspector JASON WITTIG Building Number 827 C

Instr desc	uctions: Circle the appropriate response for eriptions and comments if necessary. Attach	each item belo additional pap	ow, and record the date and time. Provide er if extra space is needed.
This avail	record is to be maintained by the Inspecting able by request of EPD or regulatory personness.	Organization f nel.	for a minimum of 5 years and made
Send	d a completed copy to the attention of Ada Ch	nan, Environm	ental Functional Area, (L-627)
Che	ck Items	Response	Description and Comments:
1.	Is water flowing from the Christy box?	Yes/No	
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	YesNo	
ES ED arr	yes is indicated to either 1 or 2, contact the S&H Team EA or off hours contact the OO (pager 04097 or 27595) immediately to range for reporting to the regulatory ency and sample collection.		
3.	Is there standing water in the Christy box?	Yes/No	couple inches ' ~ 2ft diameter around pipe ' ~ Z"; will monitur neekly
inc	ves is indicated in 3, note depth and crease inspection frequency to weekly until water is noted		~ 2"; will monitor neekly
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/(No)	
	ves to any of the above, note date, actions even, and type of repairs when made.	1	
Sune	ervisor's Signature	leur	
* 1 perce	Note: This form may be modified or used as olation pits permitted under Monitoring and R sion 1. If standing water is observed in the makey until no standing water is observed.	eporting Prog	nting the routine inspections of the ram Order Number R5-2008-0148,

Instructions: Circle the appropriate response for each item below, and record the date and time. Provide

descriptions and comments if necessary. Attach additional paper if extra space is needed.

Inspector JASON WITTIG Building Number 827 15

This record is to be maintained by the Inspecting available by request of EPD or regulatory person		or a minimum of 5 years and made
Send a completed copy to the attention of Ada C	han, Environm	ental Functional Area, (L-627)
Check Items	Response	Description and Comments:
1. Is water flowing from the Christy box?	YesNo	
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christy box?	Yes/No	
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted)
 Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris). 	Yes/No	·
If yes to any of the above, note date, actions taken, and type of repairs when made.	1	
Supervisor's Signature	elru	Date 8-7-19
* Note: This form may be modified or used as percolation pits permitted under Monitoring and FRevision 1. If standing water is observed in the r	Reporting Progr	am Order Number R5-2008-0148,

weekly until no standing water is observed.

Date	8/7/19 Inspector	ASON WIT	T14 Building Number	827 E			
Instru desc	uctions: Circle the appropriate responsitions and comments if necessary. A	se for each item belo attach additional pap	ow, and record the date and per if extra space is needed.	time. Provide			
This avail	record is to be maintained by the Inspeable by request of EPD or regulatory p	ecting Organization tersonnel.	for a minimum of 5 years an	d made			
Send	I a completed copy to the attention of A	Ada Chan, Environm	nental Functional Area, (L-62	27)			
Chec	<u>ck Items</u>	<u>Response</u>	Description and Commen	ts:			
1.	Is water flowing from the Christy box'	Yes/No					
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	v Yes/No					
ES ED arr	es is indicated to either 1 or 2, contact &H Team EA or off hours contact the O (pager 04097 or 27595) immediately ange for reporting to the regulatory ency and sample collection.						
3.	Is there standing water in the Christy box?	Yes/No)					
inc	es is indicated in 3, note depth and rease inspection frequency to weekly uwater is noted	ıntil					
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	e Yes/No					
	es to any of the above, note date, action en, and type of repairs when made.	ons					
Supe	rvisor's Signature	ller	Date	1-19			
perco Revis	Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.						

August

Date 1/24/2019 Inspector Mark	k Krauks	Building Number	806 A		
Instructions: Circle the appropriate response f descriptions and comments if necessary. Atta			me. Provide		
This record is to be maintained by the Inspection available by request of EPD or regulatory personal process.		or a minimum of 5 years and	made		
Send a completed copy to the attention of Ada	Chan, Environme	ental Functional Area, (L-627)		
Check Items	Response	Description and Comments	<u>s:</u>		
1. Is water flowing from the Christy box?	Yes/No				
Are there any signs of recent overflow (damp dirt around Christy box)?	Yes				
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.					
3. Is there standing water in the Christy box?	Yes/No				
If yes is indicated in 3, note depth and increase inspection frequency as needed until no water is noted					
 Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris). 	Yes/No				
If yes to any of the above, note date, actions taken, and type of repairs when made.					
Supervisor's Signature		Date 7/29/	13		
Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency as needed until no standing water is observed.					

Date $\frac{Q/4/19}{1}$ Inspector $\frac{1}{2}$ Solution	Ð	Building Number 827 A			
Instructions: Circle the appropriate response for descriptions and comments if necessary. Attach	each item belo additional pape	w, and record the date and time. Provide er if extra space is needed.			
This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.					
Send a completed copy to the attention of Ada Chan, Environmental Functional Area, (L-627)					
<u>Check Items</u>	Response	Description and Comments:			
1. Is water flowing from the Christy box?	Yes(No				
Are there any signs of recent overflow (damp dirt around Christy box)?	Yes(No				
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.					
3. Is there standing water in the Christy box?	Yes/No				
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted					
 Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris). 	Yes/No				
If yes to any of the above, note date, actions taken, and type of repairs when made.					
Supervisor's Signature	ent	Date 9.9.19			
* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.					

Date	94/19	Inspector	TJ	Soto	Buildin	g Number	82	7 C
Instru desc	uctions: Circle the riptions and comm	appropriate respo	onse for Attach	r each item belo n additional pap	ow, and record the er if extra space is	date and to needed.	ime. F	Provide
This availa	record is to be mai able by request of	ntained by the Ins EPD or regulatory	specting perso	g Organization f nnel.	for a minimum of 5	years and	l made	
Send	l a completed copy	to the attention o	f Ada C	Chan, Environm	ental Functional A	rea, (L-627	7)	
Chec	<u>ck Items</u>			Response	Description and	Comments	<u>s:</u>	
1.	Is water flowing fr	om the Christy bo	x?	Yes (No				
2.	Are there any sign (damp dirt around		low	YesNo				
ES ED arr	es is indicated to e &H Team EA or of O (pager 04097 or ange for reporting ency and sample c	f hours contact th 27595) immediat to the regulatory	е					
3.	Is there standing box?	water in the Chris	ty	YesyNo	~ 1ft deep worse thin	/~5	iff d	lanefel
inc	es is indicated in 3 rease inspection fr water is noted		y until		worse thin	last u	rech	
4.	Are there any oth percolation pit rec (e.g., excessive b accumulation of d	quires maintenand uild up scale,		Yes/No				
	es to any of the ab en, and type of rep		ctions					
* N	rvisor's Signature lote: This form ma	y be modified or u	used as	s is for documer	Date	9-9.19 spections	of the	
perco	plation pits permitte sion 1. If standing	ed under Monitorir water is observed	ng and in the	Reporting Programonthly inspect	ram Order Numbe tion, increase insp	r R5-2008- ection freq	·0148, uency	to

weekly until no standing water is observed.

Date	9/4/19 Inspector	U	Soto	Building Number	827 D
Instru descr	ctions: Circle the appropriate responding interest of the comments if necessary.	onse for Attach	each item belog additional pape	w, and record the date and ti er if extra space is needed.	me. Provide
This r availa	record is to be maintained by the Insuble by request of EPD or regulatory	specting person	Organization fo	or a minimum of 5 years and	made
Send	a completed copy to the attention of	of Ada C	han, Environme	ental Functional Area, (L-627)
Chec	k Items		Response	Description and Comments	<u>:</u>
1.	Is water flowing from the Christy bo	ox?	Yes		
2.	Are there any signs of recent overf (damp dirt around Christy box)?	low	Yes/No		
EŠ8 ED0 arra	es is indicated to either 1 or 2, conta BH Team EA or off hours contact th O (pager 04097 or 27595) immedia ange for reporting to the regulatory ancy and sample collection.	е			
3.	Is there standing water in the Chrisbox?	sty	Yes/No		
incr	es is indicated in 3, note depth and ease inspection frequency to weekl water is noted	y until			
4.	Are there any other indications that percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).		Yes/No		
	es to any of the above, note date, ac en, and type of repairs when made.	ctions			1
Super	visor's Signature	<u>lla</u>	Water	Date	7-19

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date $9/4/19$ Inspector	Soto	Building Number	827 E	
Instructions: Circle the appropriate response to descriptions and comments if necessary. Atta	for each item belo ch additional pape	ow, and record the date and ti er if extra space is needed.	me. Provid	
This record is to be maintained by the Inspecti available by request of EPD or regulatory pers		or a minimum of 5 years and	made	
Send a completed copy to the attention of Ada	Chan, Environme	ental Functional Area, (L-627)	
Check Items	Response	Description and Comments	<u>:</u>	
1. Is water flowing from the Christy box?	Yes (No)			
Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No			
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.				
3. Is there standing water in the Christy box?	Yes(No)			
If yes is indicated in 3, note depth and increase inspection frequency to weekly untino water is noted	l			
 Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris). 	Yes(No)			
If yes to any of the above, note date, actions taken, and type of repairs when made.	0			
Supervisor's Signature	alex		19	
* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.				

Inspector MARK KRAUAK

Date 4,26	2015	Inspector _	Mark	KRAULS	Build	ing Number	806 A	
Instructions: descriptions	Circle the ap	propriate res s if necessa	sponse for ary. Attach	each item bel additional par	ow, and record the oer if extra space	ne date and til is needed.	me. Provide	
This record is available by r	to be mainta request of EP	ined by the D or regulat	Inspecting ory persor	g Organization nnel.	for a minimum of	f 5 years and	made	
Send a comp	leted copy to	the attention	n of Ada C	han, Environn	nental Functional	Area, (L-627)) 2	
Check Items				Response	Description ar	nd Comments		
1. Is wate	r flowing fron	the Christy	box?	Yes/No				
	re any signs dirt around C			Yes (Nb)	-			
ES&H Tear EDO (page arrange for	icated to eith m EA or off her or 04097 or 27 reporting to the disample colle	ours contact 7595) immed he regulator	the diately to					
3. Is there box?	e standing wa	ter in the Ch	nristy	Yes No				
	icated in 3, n spection frequer ter is noted							
percola (e.g., e	re any other tion pit requir xcessive buil- ulation of dirt	es maintena d up scale,		Yes/No				
	y of the above type of repair			7				
Supervisor's	Signature	Ø			Date	9/27/1	9	
percolation pi Revision 1. I	Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency as needed until no standing water is observed.							

Date 9/26/2019

GOS A

Date	10/3/19 Inspector T)	Sole	Building Number _	827 <u>A</u>					
Instru	nstructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.								
This availa	This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.								
Send	Send a completed copy to the attention of Ada Chan, Environmental Functional Area, (L-627)								
Chec	k Items	Response	Description and Comments:						
1.	Is water flowing from the Christy box?	Yes/No		-					
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No							
EŠ ED arr	es is indicated to either 1 or 2, contact the &H Team EA or off hours contact the O (pager 04097 or 27595) immediately to ange for reporting to the regulatory ency and sample collection.								
3.	Is there standing water in the Christy box?	Yes(No							
inc	es is indicated in 3, note depth and rease inspection frequency to weekly until water is noted								
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/(No)							
	es to any of the above, note date, actions en, and type of repairs when made.		·						
* N	Supervisor's Signature * Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148,								
Revis	sion 1. If standing water is observed in the rally until no standing water is observed.	monthly inspect	ion, increase inspection frequ	ency to					

Date	10/3/19	Inspector _	TJ	Soto	Building Number	827C		
Instri	uctions: Circle the	appropriate res ents if necessa	sponse for ry. Attach	each item belo additional pape	w, and record the date and ti er if extra space is needed.	me. Provide		
This avail	record is to be mai able by request of l	ntained by the EPD or regulate	Inspecting ory person	Organization fondel.	or a minimum of 5 years and	made		
Send	Send a completed copy to the attention of Ada Chan, Environmental Functional Area, (L-627)							
Chec	ck Items			Response	Description and Comments	<u>:</u>		
1.	Is water flowing fr	om the Christy	box?	Yes/No				
2.	Are there any sign (damp dirt around		erflow	Yes (No)				
ES ED arr	res is indicated to e &H Team EA or of O (pager 04097 or ange for reporting t ency and sample c	f hours contact 27595) immed to the regulator	the iately to					
3.	Is there standing box?	water in the Ch	risty	Yes/No	~ 6 in of wite	<u> </u>		
inc	res is indicated in 3 rease inspection fro water is noted							
4.	Are there any other percolation pit received (e.g., excessive be accumulation of decided accumulation accumulation of decided accumulation accumu	uires maintena uild up scale,		Yes/No	9			
	es to any of the ab en, and type of rep							
Supe	rvisor's Signature	Sum	Mari	lute	Date	1- Lq		
perco	Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to							

Date	10/3/15 Inspector 13	Sole	Building Number \(\begin{align*} \delta d \in \int \end{align*}
Instru desc	uctions: Circle the appropriate response for riptions and comments if necessary. Attach	each item belo additional pap	ow, and record the date and time. Provide er if extra space is needed.
This avail	record is to be maintained by the Inspecting able by request of EPD or regulatory persor	Organization f nnel.	for a minimum of 5 years and made
Send	d a completed copy to the attention of Ada C	han, Environm	ental Functional Area, (L-627)
Chec	ck Items	Response	Description and Comments:
1.	Is water flowing from the Christy box?	Yes/No	
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
ES ED arr	res is indicated to either 1 or 2, contact the 6&H Team EA or off hours contact the PO (pager 04097 or 27595) immediately to ange for reporting to the regulatory ency and sample collection.		
3.	Is there standing water in the Christy box?	Yes/No	
inc	res is indicated in 3, note depth and rease inspection frequency to weekly until water is noted		,
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No	
	es to any of the above, note date, actions en, and type of repairs when made.		
	ervisor's Signature	tali	Date
* 1	Note: This form may be modified or used as		nting the routine inspections of the

percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date	10/3/11 Inspector	J Seto	Building Number	827 E
Instru desc	uctions: Circle the appropriate response riptions and comments if necessary. Atta	for each item belo ach additional pap	ow, and record the date and ti er if extra space is needed.	me. Provide
This avail	record is to be maintained by the Inspectable by request of EPD or regulatory per	ting Organization f sonnel.	or a minimum of 5 years and	made
Send	a completed copy to the attention of Ad	a Chan, Environm	ental Functional Area, (L-627)
Chec	k Items	Response	Description and Comments	<u>:</u>
1.	Is water flowing from the Christy box?	Yes(No)		
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No		
ES ED arr	es is indicated to either 1 or 2, contact th &H Team EA or off hours contact the O (pager 04097 or 27595) immediately t ange for reporting to the regulatory ency and sample collection.			
3.	Is there standing water in the Christy box?	Yes(No		
inc	es is indicated in 3, note depth and rease inspection frequency to weekly unwater is noted	til		
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes/No		
	es to any of the above, note date, actions en, and type of repairs when made.	S		
Supe	rvisor's Signature	want	Date	.19
* N	ote: This form may be modified or used	as is for documen	nting the routine inspections o	f the

^{*} Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Oct.

Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist* For Buildings 827A, 827C, 827D, 827E, and 806A Waste Discharge Requirements Order Number R5-2008-0148 Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date 930 2019 Inspector MARK KRAUNS Building Number 806 A

,		
Instructions: Circle the appropriate respondescriptions and comments if necessary.	e for each item below, and record the date and time. Provid ttach additional paper if extra space is needed.	le
This record is to be maintained by the Insp available by request of EPD or regulatory p	ecting Organization for a minimum of 5 years and made ersonnel.	
Send a completed copy to the attention of	Ada Chan, Environmental Functional Area, (L-627)	
Check Items	Response Description and Comments:	
1. Is water flowing from the Christy box		_
Are there any signs of recent overflo (damp dirt around Christy box)?	v Yes/No	_
If yes is indicated to either 1 or 2, contact ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediate arrange for reporting to the regulatory agency and sample collection.		
3. Is there standing water in the Christ box?	Yes(No	
If yes is indicated in 3, note depth and increase inspection frequency as neede until no water is noted	<u> </u>	
 Are there any other indications that percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris). 	he Yes(No	<u> </u>
If yes to any of the above, note date, actaken, and type of repairs when made,	ions	_
Supervisor's Signature	Date /0/9/19	
· · · · · · · · · · · · · · · · · · ·	sed as is for documenting the routine inspections of the g and Reporting Program Order Number R5-2008-0148, in the monthly inspection, increase inspection frequency as	

Date <u>II 6/15</u> Inspector	TJ	50 0 0	Building Number 827A					
Instructions: Circle the appropriate resp descriptions and comments if necessary	oonse fo y. Attac	r each item belo h additional pape	w, and record the date and time. Provider if extra space is needed.					
This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.								
Send a completed copy to the attention	of Ada (Chan, Environme	ental Functional Area, (L-627)					
Check Items	,	Response	Description and Comments:					
1. Is water flowing from the Christy b	ox?	Yes/No						
Are there any signs of recent over (damp dirt around Christy box)?	rflow	Yes(No)						
If yes is indicated to either 1 or 2, contests. Team EA or off hours contact the EDO (pager 04097 or 27595) immedia arrange for reporting to the regulatory agency and sample collection.	he ately to							
3. Is there standing water in the Chri box?	sty	Yes(No						
If yes is indicated in 3, note depth and increase inspection frequency to week no water is noted								
 Are there any other indications the percolation pit requires maintenan (e.g., excessive build up scale, accumulation of dirt or debris). 	at the ice	Yes/No						
If yes to any of the above, note date, a taken, and type of repairs when made.			1/, 10					
Supervisor's Signature	M	non	Date					
* Note: This form may be modified or percolation pits permitted under Monitori Revision 1. If standing water is observed	ing and	Reporting Progra	am Order Number R5-2008-0148,					

Date	Salo	Building Number 827C						
Instructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.								
This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.								
Send a completed copy to the attention of Ada Chan, Environmental Functional Area, (L-627)								
<u>Check Items</u>	Response	Description and Comments:						
1. Is water flowing from the Christy box?	Yes (No)							
Are there any signs of recent overflow (damp dirt around Christy box)?	Yes(No							
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.		() /251 /: (25						
3. Is there standing water in the Christy box?	Yes/No	~ Gin of water/2ft diampter						
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted		Inspections are weekly						
 Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris). 	Yes(No)							
If yes to any of the above, note date, actions taken, and type of repairs when made.	1							
Supervisor's Signature	hler							
* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.								

Date		TJ	Solo	Building Number	827 1	D			
Instru	uctions: Circle the appropriate responding and comments if necessary.	onse fo Attac	or each item belo ch additional pape	w, and record the date and ti er if extra space is needed.	me. Pro	vide			
This avails	This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.								
Send	Send a completed copy to the attention of Ada Chan, Environmental Functional Area, (L-627)								
Chec	k Items		Response	Description and Comments	<u>:</u>				
1.	Is water flowing from the Christy bo	ox?	Yes/No		··············				
2.	Are there any signs of recent overf (damp dirt around Christy box)?	low	Yes/Mo						
EŠ ED arra	es is indicated to either 1 or 2, conta &H Team EA or off hours contact th O (pager 04097 or 27595) immediat ange for reporting to the regulatory ency and sample collection.	е							
3.	Is there standing water in the Chrisbox?	sty	Yes/No		,				
inc	es is indicated in 3, note depth and rease inspection frequency to weekl water is noted	y until							
4.	Are there any other indications that percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).		Yes(No)						
tak	es to any of the above, note date, acen, and type of repairs when made.	ctions	ntre		./9				
·	rvisor's Signature	<u> </u>			<u> </u>				
perco	Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to								

Date	5010	Building Number	827 E
Instructions: Circle the appropriate response for descriptions and comments if necessary. Attach	each item belc additional pap	ow, and record the date and ti er if extra space is needed.	me. Provide
This record is to be maintained by the Inspecting available by request of EPD or regulatory persor	norganization f	for a minimum of 5 years and	made
Send a completed copy to the attention of Ada C	han, Environm	ental Functional Area, (L-627)
Check Items	Response	Description and Comments	<u>:</u>
1. Is water flowing from the Christy box?	Yes/No		
2. Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No		
If yes is indicated to either 1 or 2, contact the ES&H Team EA or off hours contact the EDO (pager 04097 or 27595) immediately to arrange for reporting to the regulatory agency and sample collection.			
3. Is there standing water in the Christy box?	Yes/No		
If yes is indicated in 3, note depth and increase inspection frequency to weekly until no water is noted			
 Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris). 	Yes/No	·	
If yes to any of the above, note date, actions taken, and type of repairs when made.			.6.19
Supervisor's Signature	en.	Date//	0 19
* Note: This form may be modified or used as percolation pits permitted under Monitoring and F Revision 1. If standing water is observed in the r	Reporting Progr	am Order Number R5-2008-	0148,

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Monthly/Weekly Mechanical Equipment Percolation Pit Inspection Checklist* For Buildings 827A, 827C, 827D, 827E, and 806A Waste Discharge Requirements Order Number R5-2008-0148 Monitoring and Reporting Program Order No. R5-2008-0148, Revision 1

Date	10/31/2019 Inspector MAR	CK KRANTK	Building Number 806 A						
	nstructions: Circle the appropriate response for each item below, and record the date and time. Provide descriptions and comments if necessary. Attach additional paper if extra space is needed.								
	This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.								
Send	Send a completed copy to the attention of Ada Chan, Environmental Functional Area, (L-627)								
Chec	k Items	Response	Description and Comments:						
1.	Is water flowing from the Christy box?	Yes No	<u></u>						
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No							
ES arra	es is indicated to either 1 or 2, contact the &H Team EA or off hours contact the O (pager 04097 or 27595) immediately to ange for reporting to the regulatory ency and sample collection.								
3.	Is there standing water in the Christy box?	Yes/No							
incr	es is indicated in 3, note depth and rease inspection frequency as needed il no water is noted								
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes							
	es to any of the above, note date, action en, and type of repairs when made.	S							
Supe	rvisor's Signature		Date						
	Note: This form may be modified or used as is for documenting the routine inspections of the ercolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148,								

Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency as

Revision 8

Date	12/4/19	Inspector	TJ	Sole	Water Control of the	Bu	ilding Number	82	7 A
Instru descr	ictions: Circle the ap	propriate responses if necessary.	onse fo Attao	or each ch addit	item belo ional pape	w, and record er if extra spa	I the date and ce is needed.	time.	Provide
This r	This record is to be maintained by the Inspecting Organization for a minimum of 5 years and made available by request of EPD or regulatory personnel.								
Send	Send a completed copy to the attention of Ada Chan, Environmental Functional Area, (L-627)								
Chec	k Items			Re	<u>sponse</u>	Description	and Commen	<u>ts:</u>	
1.	Is water flowing fron	n the Christy bo	ox?	Υ	es No			W-1140000 - 1-7-11-77	
2.	Are there any signs (damp dirt around C		low	Υ	es/No				
ES ED arra	es is indicated to eith &H Team EA or off he O (pager 04097 or 27 ange for reporting to the ency and sample colle	ours contact th 7595) immediat the regulatory	е						
3.	Is there standing wabox?	ter in the Chris	ty	Υ	es(No)				
inci	es is indicated in 3, n rease inspection freq water is noted	ote depth and uency to weekl	y until	l					
4.	Are there any other percolation pit require (e.g., excessive build accumulation of dirt	res maintenand d up scale,	t the ce	Y	es(No)				
If ye	es to any of the abov en, and type of repair	e, note date, acrs when made.	ctions						
Supe	rvisor's Signature	Jun 1	lan	tur	_& 	Da	ate 12.1	7.10	7
* N perco	Supervisor's Signature								

Date	12/4/19 Inspector	Solo	Building Number <u>827C</u>
Instru desci	octions: Circle the appropriate response for iptions and comments if necessary. Attach	each item belo additional pape	w, and record the date and time. Provide er if extra space is needed.
This i	record is to be maintained by the Inspecting able by request of EPD or regulatory person	Organization fon fonce of the contract of the	or a minimum of 5 years and made
Send	a completed copy to the attention of Ada Cl	han, Environme	ental Functional Area, (L-627)
Chec	k Items	Response	Description and Comments:
1.	Is water flowing from the Christy box?	Yes/No	
2.	Are there any signs of recent overflow (damp dirt around Christy box)?	Yes/No	
ES ED arra	es is indicated to either 1 or 2, contact the &H Team EA or off hours contact the O (pager 04097 or 27595) immediately to ange for reporting to the regulatory ency and sample collection.		
3.	Is there standing water in the Christy box?	Yes/No	- 1ft from recent rain, will monitor weakly
incr	es is indicated in 3, note depth and rease inspection frequency to weekly until water is noted		
4.	Are there any other indications that the percolation pit requires maintenance (e.g., excessive build up scale, accumulation of dirt or debris).	Yes(No)	
	es to any of the above, note date, actions en, and type of repairs when made.		
	visor's Signature <u>Junellaub</u>	all'	Date 12-17.19
* N	ote. This form may be modified or used as i	is for documen	ting the routine inspections of the

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date	12/4/19	Inspector	TJ	Soto	·	Building Numb	er .	827 D
Instru desci	actions: Circle the a riptions and comme	ppropriate respor	ise for Attach	each item be additional pa	elow, and re oper if extra	cord the date a space is neede	nd tir ed.	ne. Provide
This availa	record is to be main able by request of E	tained by the Insp PD or regulatory _I	ecting person	Organizatior nel.	n for a minir	num of 5 years	and ı	made
Send	a completed copy t	o the attention of	Ada Cl	han, Environi	mental Fun	ctional Area, (L-	-627)	
Chec	k Items			Response	Descrip	tion and Comm	ents:	
1.	Is water flowing fro	m the Christy box	?	Yes	·			
2.	Are there any signs (damp dirt around	s of recent overflo Christy box)?	w	YesNo				
EŠ ED arra	es is indicated to eit &H Team EA or off O (pager 04097 or 2 ange for reporting to ency and sample co	hours contact the 27595) immediate o the regulatory						
3.	Is there standing w box?	rater in the Christy	/	Yes/No				
inc	es is indicated in 3, rease inspection fre water is noted	note depth and quency to weekly	until			-		
4.	Are there any othe percolation pit requ (e.g., excessive bu accumulation of directions)	iires maintenance ild up scale,	the	Yes(No)				
	es to any of the abo en, and type of repa		ions					
-	rvisor's Signature	Spen Il		ti				7.19
* 1	lote: This form may	be modified or us	sed as	is for docum	enting the r	outine inspectio	ns o	f the

* Note: This form may be modified or used as is for documenting the routine inspections of the percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Date	12/4/19	Inspector	1.)	2010	Building Num	ber	80	7 E
	-voy							•
Instru desci	ictions: Circle the iptions and comm	appropriate responsents if necessary. A	e for d	each item belo additional pap	ow, and record the date a er if extra space is need	and tir ed.	ne.	Provide
This availa	record is to be mai able by request of	intained by the Inspe EPD or regulatory pe	cting erson	Organization f nel.	or a minimum of 5 years	and	made	Э
Send	a completed copy	to the attention of A	da Cl	nan, Environm	ental Functional Area, (L	627))	
Chec	k Items			Response	Description and Comn	nents:	<u>!</u>	
1.	Is water flowing fr	rom the Christy box?		Yes/No			Parket Control	
2.	Are there any sign (damp dirt around	ns of recent overflow d Christy box)?		Yes/No		1	Management	
EŠ ED arra	&H Team EA or of							
3.	Is there standing box?	water in the Christy		Yes(No)	, , , , , , , , , , , , , , , , , , ,			
inc	es is indicated in 3 rease inspection fr water is noted	s, note depth and equency to weekly u	ntil					
4.			е	Yes(No)				
	es to any of the ab en, and type of rep	ove, note date, actio pairs when made.	ns					
Supe	rvisor's Signature	Spin U	ai	lete	Date	. 17	7. 1	9
					nting the routine inspection			

percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency to weekly until no standing water is observed.

Inspector MARK KRAWAS Building Number 806A

	comments if necessary. Attach		w, and record the date and time. Provide er if extra space is needed.
This record is to available by requ	be maintained by the Inspecting lest of EPD or regulatory person	Organization f nel.	or a minimum of 5 years and made
Send a complete	ed copy to the attention of Ada Cl	nan, Environm	ental Functional Area, (L-627)
Check Items		Response	Description and Comments:
1. Is water flo	owing from the Christy box?	Yes	
	any signs of recent overflow around Christy box)?	Yes	
ES&H Team E EDO (pager 04 arrange for rep	A or off hours contact the A or off hours contact the 4097 or 27595) immediately to corting to the regulatory mple collection.		
3. Is there sta	anding water in the Christy	Yes/No	
	red in 3, note depth and ction frequency as needed s noted		
percolation (e.g., exce	any other indications that the pit requires maintenance ssive build up scale, ion of dirt or debris).	Yes(No)	
	the above, note date, actions e of repairs when made.		
Supervisor's Sign	7		Date <u>/z/5//9</u>
Note: This fo	orm may be modified or used as	is for aocumer	iting the routine inspections of the

percolation pits permitted under Monitoring and Reporting Program Order Number R5-2008-0148, Revision 1. If standing water is observed in the monthly inspection, increase inspection frequency as

Revision 8

Appendix D

California Regional Water Quality Control Board Central Valley Region Monitoring and Reporting - LLNL

ATTACHMENT 16

Evaluation of cooling tower and mechanical equipment discharges threat to groundwater quality using the designated level methodology (DLM); comparison of maximum value detected in samples with the DLM values for disposal units (percolation pits or septic systems) using attenuation factor of 100 for systems more than 30

feet above ground water.

Parameter Parameter	Units	Maximum value detected in effluent	Designated level methodology value	Corresponding water quality goal ^a	Source of water quality goal ^a
Aluminum	mg/L	0.25	100	1	CA primary MCL ^b
Bicarbonate alkalinity (as CaCO ₃)	mg/L	220	None	None	None
Boron	mg/L	2.2	140	1.4	IRIS ^c
Calcium	mg/L	22	None	None	None
Carbonate alkalinity (as CaCO ₃)	mg/L	800	None	None	None
Chloride	mg/L	210	Not applicable	250	CA secondary MCL
Chromium (total)	mg/L	0.0072	5	0.05	CA primary MCL
Chromium (hexavalent)	mg/L	0.0067	2.1	0.021	IRIS
Copper	mg/L	2.4	130	1.3	CA primary MCL
Fluoride	mg/L	1.1	200	2	CA primary MCL
Hydroxide alkalinity (as CaCO ₃)	mg/L	120	None	None	None
Iron	mg/L	2.3	30	0.3	CA secondary MCL
Lead	mg/L	0.0077	1.5	0.015	CA primary MCL
Magnesium	mg/L	1.4	None	None	None
Manganese	mg/L	0.2	5	0.05	CA secondary MCL
Molybdenum	mg/L	0.045	3.5	0.035	IRIS

continued

ATTACHMENT 16 - CONTINUED

Evaluation of cooling tower and mechanical equipment discharges on ground water quality using the designated level methodology (DLM); comparison of maximum value detected in samples with the DLM values for disposal units (percolation pits or septic systems) using attenuation factor of 100 for systems more than 30 feet above ground water.

Units	Maximum value detected in effluent	Designated level methodology value	Corresponding water quality goal ^a	Source of water quality goal ^a
mg/L	0.019	10	0.1	CA primary MCL
mg/L	0.4	Not applicable	10	CA primary MCL
mg/L	1.8	Not applicable	45	CA primary MCL
mg/L	0.17	Not applicable	10	CA primary MCL
mg/L	180	None	None	None
mg/L	280	None	None	None
mg/L	0.0036	5	0.05	CA primary MCL
mg/L	740	Not applicable	30-60	Taste & odor
µmhos/c m	4,340	Not applicable	900	CA secondary MCL
mg/L	885	Not applicable	250	CA secondary MCL
mg/L	920	None	None	None
mg/L	3,300	Not applicable	500	CA secondary MCL
mg/L	58	None	None	None
mg/L	54	None	None	None
mg/L	0.011	Not applicable	0.08	CA primary MCL
mg/L	0.1	6.3	0.063	IRIS
mg/L	0.34	500	5	CA secondary MCL
	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	Units detected in effluent mg/L 0.019 mg/L 0.4 mg/L 1.8 mg/L 180 mg/L 280 mg/L 740 μmhos/c 4,340 mg/L 885 mg/L 920 mg/L 3,300 mg/L 58 mg/L 54 mg/L 0.011 mg/L 0.1	mg/L 0.019 10 mg/L 0.4 Not applicable mg/L 1.8 Not applicable mg/L 0.17 Not applicable mg/L 180 None mg/L 280 None mg/L 740 Not applicable mg/L 740 Not applicable mg/L 3,300 None mg/L 3,300 None mg/L 3,300 None mg/L 58 None mg/L 54 None mg/L 54 None mg/L 0.011 Not applicable Onits detected in effluent methodology value water quality goal ^a mg/L 0.019 10 0.1 mg/L 0.4 Not applicable 10 mg/L 1.8 Not applicable 45 mg/L 0.17 Not applicable 10 mg/L 180 None None mg/L 280 None None mg/L 0.0036 5 0.05 mg/L 740 Not applicable 30-60 μmhos/c m 4,340 Not applicable 900 mg/L 885 Not applicable 250 mg/L 920 None None mg/L 3,300 Not applicable 500 mg/L 58 None None mg/L 54 None None mg/L 0.011 Not applicable 0.08 mg/L 0.011 Not applicable 0.08	

From A Compilation of Water Quality Goals (Marshack August 2007).

b MCL – Maximum contaminant level.

^c IRIS – USEPA Integrated Risk Information System reference dose for drinking water.



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